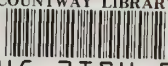


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PUBLISHED MONTHLY under direction of the Council

Volume XVI
Number 1

Atlanta, Ga., January, 1927

Per Year : \$3.00
Single Copy 30 Cents

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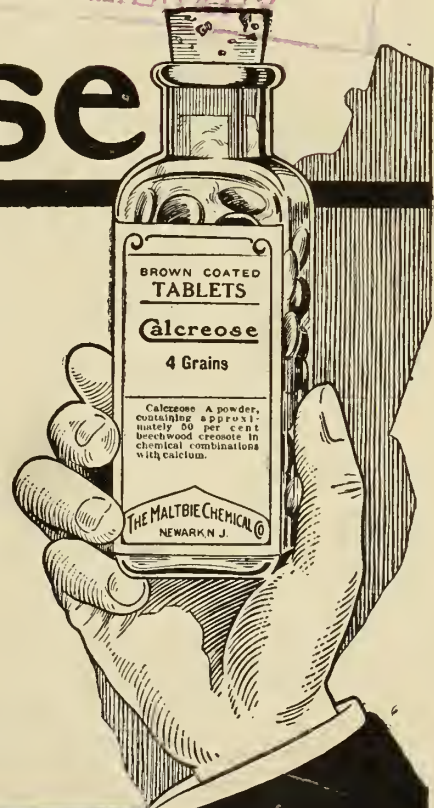
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Original Articles

RADIUM TREATMENT FOR CANCER OF THE CERVIX*

REPORT OF CASES—LANTERN SLIDES

O. D. HALL, M.D.
Atlanta

There are two kinds of cancer of the cervix, squamous cell and adeno-carcinoma.

SQUAMOUS CELL CARCINOMA OF THE CERVIX

Squamous cell carcinoma of the cervix develops on the vaginal portion of the cervix and may be divided into two types, everting and inverting. It begins as a proliferation of the epithelium which soon invades the underlying tissue. Early stages are seldom seen since they occasion no symptoms. A very small tumor may appear as a papillary outgrowth on the vaginal mucosa which bleeds quite easily.

The inverting type begins as a proliferation of the epithelium of the vaginal portion of the cervix. The tumor inverts early into the underlying connected tissue. The earlier stages may present a hard nodule in the substance of the cervix. The lip of the cervix surrounding the growth is usually hypertrophied. There may be no other evidence of the tumor since it develops in the connective tissue beneath the cervical epithelium.

The everted type of squamous cell carcinoma of the cervix is where we obtain our greatest results with radium. The growth extends toward the vagina and does not destroy cervical tissue like the inverted type. However, I have seen all of the vaginal portion of the cervix

destroyed without any extension into the bladder, rectum or broad ligaments. At least, we had no evidence of the extension as the patients invariably complain of pain when the surrounding tissues are invaded. The inverting type frequently produces slight early symptoms and may be far advanced before it is recognized.

ADENOCARCINOMA OF THE CERVIX

The new growth may arise from the surface epithelium of the cervix or from that of the cervical glands. As in the squamous cell carcinoma we have the everting and inverting types. The everting growth which arises from the surface epithelium primarily appears as a proliferation of the epithelium which soon presents a papillary structure, growing into the cervical canal and extending along its course, deeply penetrating the cervical tissue beginning higher up. They are usually only hypertrophied, although they feel nodular to the examining finger.

In a considerable number of cases the cauliflower mass is finally extruded through the external os and presents a worm-eaten appearance. The cervix itself rarely bleeds from touch before there is a tumor which presents through the os. The polyp mass is friable and bleeds quite easily although not so easily as the everting squamous cell epithelioma.

The inverting type of adenocarcinoma arises more frequently from the glands than from the epithelium of the surface. It inverts early and is not likely to present the character of the preceding type until the final stages. The surface epithelium may be smooth or thinned out over a deep seated nodular tumor. This growth early invades the cervical tissue, grow-

*Read before the Medical Association of Georgia, Albany, Ga., May 12, 1926.

ing out directly toward the parametrium. The lips may appear only hypertrophied or glazed and thickened until the final stages. Just as in the squamous cell carcinoma the best results are obtained with the use of radium in the everted type of adenocarcinoma. The reason that results are more favorable in the everted type is because they are frequently pedunculated and the growth comes through the cervix of the external os into the vagina and when radium is placed at the base of this tumor its blood supply is immediately destroyed and there being plenty of cervical tissue left, fibrous tissue is formed and chokes out the cancer cell.

believe we can demonstrate from the pictures to be shown.

In making a prognosis in regard to these cases of cancer of the cervix there is one point which I believe to be very important in determining results. If a patient comes in complaining with pain in the bladder or rectum, this pain, as a rule, is due to metastasis of these organs, and in such an instance the prognosis is unfavorable. I make this my guide regardless of the amount of pathology which can be seen or felt. There may be pelvic pain which is due to other causes, such as, infection from the ulcerated condition of the



Fig. 3a. Pathology of Cervix at first treatment. Mrs. S. L. G. Squamous cell carcinoma. Age 42. Hemorrhages 2 months. Watery discharge 8 months. No pain. Treatment Feb. 20, 1919 to July 23, 1919. Patient was given 4000 mghrs. radium.



Fig. 3b. Condition of Cervix of Fig. 3a, 3 months after first treatment. No recurrence. Patient living 7 years.

The lantern illustrations which I propose to show are selected to demonstrate the results obtained in radium therapy in cancer of the cervix. For quite a while I was unable to understand why we obtained good results in seemingly far advanced cases and failed in others apparently less severe. After ten years of observance I have come to the conclusion that it is due entirely to the amount of destruction to the wall of the cervix, which I

cervix, or pelvic pain which existed even before the onset of cancer. The patient should be quizzed thoroughly and the history should be taken of previous pelvic pains in order to prevent confusion with metastasis.

Large doses of radium should not be given where you have reason to believe there is no hope of a cure. This only adds pain and may produce a recto or vesicovaginal fistula. There is also danger of injuring other organs which may have a metastasis. Broken down cancer-

ous tissue sometimes produces a pernicious toxemia.

Operable, border-line and inoperable are the classifications most commonly used in determining the severity or extent of the disease. Since operation for cancer of the cervix is gradually being eliminated we must re-classify in order to arrive at a basis on which to work from a radium standpoint. From my own observation I am classifying all cases according to symptoms. We have three symptoms which are a guide to our prognosis in determining results; first, watery discharge; second, hemorrhages; third, pain. The pain may be in the bladder, rectum, broad liga-

ment of the radium. The prognosis is unfavorable in such cases. As a rule a third treatment would be of no avail and would add injury to the patient.

Hemorrhages vary in different cases as to its onset. In squamous cell carcinoma the hemorrhages appear much earlier than in the adenocarcinoma due to the squamous cell beginning on the vaginal portion of the cervix and may be brought on by the nozzle of a syringe in taking douches, or by coitus; whereas, the adenocarcinoma generally begins in the mucous membranes of the cervix, or in the glands in the cervical wall and is not subject to trauma or irritations. This form of cancer is much more difficult to diagnose

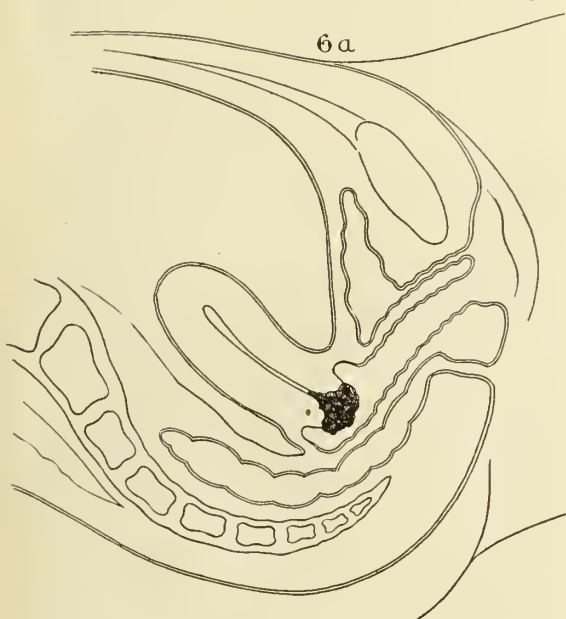


Fig. 6a. Pathology of Cervix at first treatment. Mrs. W. M. D. Adeno-carcinoma. Age 52. Hemorrhages and discharge for 6 months. No pain. Jan. 19, 1922, 2200 mgrs. of radium given. March 3, 1922, 2200 mgrs. Total 4400 mgrs.

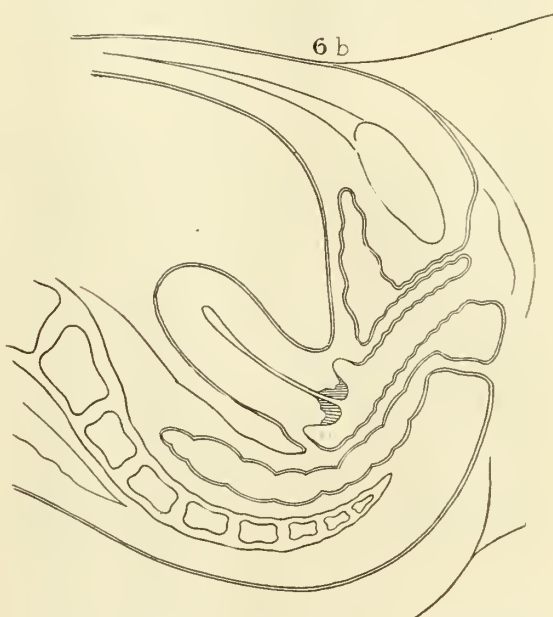


Fig. 6b. Condition of Cervix of Fig. 6a 3 months after first treatment. Patient living 5 years without recurrence.

ments, or in the hip which radiates down the thigh. There may be no pain at first treatment but in two or three weeks afterward pain may begin in the location of one or more of the above-mentioned regions. In such instance the outlook is unfavorable if the pain does not cease within six weeks after first treatment. If it is due to the reaction of the radium, the pain will stop generally in four to five weeks. However, there are a few cases where pain does not begin after the first treatment but may begin soon after the second treatment, and if this pain does not cease within six weeks after treatment it is due generally to an extension rather than the re-

than the squamous cell, as there may be symptoms of nothing more than the first one mentioned, namely, a discharge of a muco-purulent or watery nature, and it is here that the physician is taxed to the limit in determining to just what the symptoms are due. He should watch such cases closely and if unable to determine the cause of this discharge he should make repeated examinations. Metritis and endocervicitis should be eliminated before a diagnosis of cancer is made. Sub-mucous fibroids is another possibility. If one waits too long there is danger of extravagant destruction of cervical tissue even before hemorrhages appear. Waiting for a positive labor-

atory report is risky, as there may be an inverted type which may be progressing in the direction of the bladder, rectum or broad ligaments. Generally this type is in the wall of the cervix which makes it risky to wait for laboratory diagnosis. I do not wish to be misunderstood on the subject of laboratory diagnosis. I believe the diagnosis from laboratory reports should be made on all cases where it is possible. The position I take is, that waiting for laboratory reports is frequently unsafe, because of the inverting type which from it is very difficult to secure tissue early enough to produce satisfactory results. Polese states that he watched 48 cases with endocervicitis and found that 34 out of 48 developed cancer. If he is correct and these patients are treated for endocervicitis we can save 34 from developing cancer and will cure the remaining 14 of cervicitis, or to any of the other conditions it might be due. This may sound unscientific, but from the standpoint of saving human life it is safe and good therapeutics.

Wm. P. Graves says, "We have for example, greatly modified our classification of cases. We have changed the term 'operability' to 'curability by operation,' which has quite a different significance. Whereas we formerly over a period of many years operated on about 60 per cent of all cases we now subject to operation only about 20 per cent. During the last five or six years we have carried on parallel series of operated and radiated cases, in which the disease is limited to the cervix and frankly curable by either operation or radium. Such patients have been chosen for irradiation as, on account of obesity or constitutional weaknesses, incurred a special risk in operation. Sufficient time has not elapsed to draw authoritative conclusions from this series, especially as the operated cases greatly exceed the others in number."

John G. Clark says, "I have thus far maintained that in the hands of an expert I would not deem radical surgery, but since the experts are 'few and far between,' I really believe the greatest good for the greatest number of those victims will follow from carefully administered irradiation rather than from these very dangerous operations which carry besides a high mortality, a considerable

morbidity percentage. In my Clinic at the University Hospital we have practically reached the parting of the ways and now tread the radium path."

Dr. Delporte in addressing the Societe Belge de Chirurgie summed up his opinion on treatment of cancer of the cervix as follows: "The Wertheim operation was the first step toward the proper treatment of cancer of the cervix. Irradiation constitutes the second stage. Today radium therapy should replace surgery." With respect to the Wertheim operation, he states that (1) 43 per cent of the cases are operable, while 60 per cent of the cases are abandoned; (2) there are difficulties of technique; (3) the operative mortality is from 10 to 15 per cent; (4) cure of operable cases, after 5 years, results in from 30 to 45 per cent, and (5) 60 per cent of the inoperable cases are abandoned. From the standpoint of radium therapy, however, he observes that (1) all cases are treated; (2) there is no technical difficulty; (3) there is no primary mortality; (4) cure of operable cases, after 5 years, results in from 30 to 40 per cent, and (5) cure of inoperable cases, after 5 years, in from 10 to 14 per cent.

If Delporte is correct in his statement, one can see how much better results can be obtained from the use of radium in cancer of the cervix than can be accomplished by surgery. We see that only 43 per cent were operable, 60 per cent abandoned. With the Wertheim operation, there was from 10 to 15 per cent mortality and 30 to 45 per cent of 5-year cures. With the use of radium of the operable cases the percentage was from 30 to 40 per cent of 5-year cures. With the use of radium of the inoperable cases the percentage was from 10 to 14 per cent of 5-year cures, making a total of 5-year cures both operable and inoperable from 40 to 54 per cent, and I believe these statistics are fairly accurate. In the face of these facts surgeons are still operating for cancer of the cervix, which in most instances, I believe is due to the fact that they are not familiar with statistics on the subject.

AGE INCIDENT OF CANCER OF THE CERVIX

The following is the percentage of different

ages which occurred in my own cases. The youngest was 26 and the oldest 80.

From 30 to 40	15 per cent
From 40 to 50	42 per cent
From 50 to 60	24 per cent
From 60 to 70	15 per cent
From 70 to 80	4 per cent

We find that the results in the way of a cure in the women from 40 to 50 were not so good as the women past this age. It is very hard to explain why this is true. However, the following reasons may throw some light on the subject:

First, these women are approaching the menopause, and at this period of life, they believe that hemorrhage is necessary, and the result is that they procrastinate in consulting a physician and are far advanced before cancer is found.

Second, some are very anemic from the loss of blood which has a bearing on the treatment of cancer.

Third, their nervous system is very much upset at this period of life and this may have some effect on retarding results.

The woman who has passed the menopause is aware that something is very radically wrong when she has hemorrhage or a watery discharge and this will cause her to consult a doctor much earlier than the young woman.

CONCLUSIONS

First—That cancer of the cervix can be cured by the use of radium if it is treated early.

Second—That all cases presenting clinical symptoms should be treated with radium promptly because it is unsafe to await laboratory findings to confirm our diagnosis as delay may prove disastrous in such cases.

Third—That 58 per cent of cases of cancer of the cervix can be cured if they are treated before pain develops.

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DISCUSSION ON PAPER OF DR. HALL

Dr. L. D. Parry, Thomasville: The outstanding feature is hemorrhage as pointed out by Dr. Hall. That is usually the symptom that brings a patient to us for treatment.

Once in awhile they complain of pain, but hemorrhage is the important factor. The great thing to decide when a patient presents herself is to determine whether it is operable, or should Radium or X-ray be used. If the body of the uterus is attacked that very definitely eliminates surgery. The greatest skill is required to examine these cases and a gynecologist should be called. The leading gynecologists state that the thoroughness of the examination is of paramount importance. If it can be definitely determined that the parts including the ovaries and tubes are free of infection then radium may be used, if infection exists radium is contra-indicated. When carcinoma of the cervix is treated with radium, the body of the uterus should receive thorough Roentgen therapy. When the patients return for observation and we find that the parts are nearly healed but the lips of the cervix show an erosion, it is a good plan to electro-coagulate these parts.

Dr. F. J. Denton, Atlanta: The classification mentioned by Dr. Hall I think is better superseded by that advised by Dr. Schmitz, which is being adopted by practically all the clinics and observers in the country. He classifies these growths as Classes I, II, III and IV. Class I. The growth is limited to the cervix. Class II. It has invaded the vaginal wall. Class III. It has extended to the parametrium. Class IV consists of those cases in which the growth has extended into the parametrium and produced what is termed a "frozen pelvis." This gives us a clear idea of the extent of the carcinoma. They usually manifest themselves with a watery discharge and slight bleeding. When profuse hemorrhage starts the carcinoma is usually advanced.

We have been impressed with the importance of early diagnosis. There is one thing about the diagnosis that I wish to bring out, and that is the age of the patient. Most of the cases Dr. Hall cited occurred in patients over forty, and the books on gynecology tell us that most of the carcinomas occur after thirty-five. They do not state emphatically enough that it can occur earlier. In my opinion, it should be stated that carcinoma can occur any time after the reproductive period of woman begins. We have had one case in which it occurred at twenty-four, and another at twenty-eight. Both of these women had had children at fourteen. We had another case which occurred at twenty-six, and another at twenty-nine, and all of these were advanced cases.

We follow all of our examinations by removal of a section, although this is condemned by many as being conducive to spreading the

disease. I do not believe this is true, and think it is justifiable in order to be sure about the type of the growth. If there is any danger the edges can be sealed with a cautery, either the chemical or actual.

I was glad Dr. Hall mentioned the carcinoma of the cervical canal. We recently had a woman admitted to the Grady Hospital who complained of bleeding. She had passed her menopause and knew something was wrong. The examination caused bleeding. On inspection the cervix appeared normal, but on closer inspection just inside the os there was an infiltration. By using a punch we were able to get a section, which proved to be an adenocarcinoma.

To show you how early we get these cases I have a little resume here of sixty cases treated in a little over a year. Of these fourteen were in Class I; one in Class II; the rest were in Class III and Class IV. The life of the Steiner Clinic is too young as yet to give any figures, but the treatment is to give between seven and eight thousand millicurie hours. If the cervical mass is not too large we place bombs in the vaginal fornices, so that we can bombard the parametria from both sides. Then bare tubes are placed in the cervical mass, and following this screened tubes are placed in the cervical canal.

Dr. O. D. Hall, Atlanta (closing): I wish to express my appreciation to the gentlemen for their discussion.

In regard to the adenocarcinoma of which Dr. Denton spoke we are indebted to the surgeons for information on this particular type. Frequently these growths begin in the walls of the cervix. I had an opportunity of seeing one a few years ago where the uterus had been removed surgically. Several biopsies had been done with a negative report. However, the patient continued to have a watery discharge and hemorrhages. The surgeon did a hysterectomy more particularly for the hemorrhages than anything else. He freed the cervix anteriorly, laterally and pulled the uterus up to free it posteriorly and to his surprise he found that all the tissue in this region was a cancerous mass. Still there was very little seen in the cervical canal which indicated cancer. This goes to show that it is dangerous and risky to wait for laboratory diagnosis in face of continued clinical symptoms.

Whenever a patient gives a history of a watery discharge and hemorrhages the physician consulted should make a thorough examination and try to eliminate cancer. The four conditions in which one gets a watery discharge and hemorrhages are most commonly found in endocervicitis, endometritis, sub-

mucous fibroids and cancer. As there are practically no mortalities from the use of radium and it will cure the benign conditions as well as the cancer, it seems risky to wait for laboratory reports. In a case of a child with eroup the most important thing to think of and to eliminate is diphtheria. If it is due to spasmodic eroup it will get well without treatment, but if it is due to diphtheria it will most likely die if antitoxin is not given early. I regard it as equally important to have in mind the possibility of cancer of the cervix, when clinical symptoms are present, as it is in the case of diphtheria. The benign cases are not fatal whereas cancer is. It is just as possible to cure early cancer of the cervix with the use of radium as it is to cure cancer of the skin, the only difference being that it is much more difficult to diagnose the former than the latter.

ENDEMIC TYPHUS FEVER*

V. P. SYDENSTRICKER, M.D.

Augusta

Although the existence in this country of a mild or attenuated endemic typhus fever has been generally accepted since the definitive description of the disease by Brill (1,2) in 1910, the wide distribution of the infection has been generally overlooked. Mention of "Brill's Disease" brings to mind the crowded ghettos of the great eastern seaports and we have formed the habit of inseparably associating typhus with crowded, filthy tenements. It is of interest to note that endemic typhus has been reported not only from most of the larger eastern cities, but from Chicago, Milwaukee, Washington, Atlanta, Savannah, Providence and points in Indiana and Virginia (3) as well as the Rio Grande Valley (4). That the disease is truly endemic outside of seaports and great centers of population is shown by the occurrence of the eight cases herewith reported. These cases distributed over a period of ten years represent probably only a fraction of those present in the community during that time. With one exception these patients were drawn from the better class of the population. None lived or worked under actual "slum" conditions.

*From the Department of Internal Medicine, University of Georgia, Medical Department.

*Read before the Medical Association of Georgia, Albany, Ga., May 13, 1926.

Endemic typhus fever as defined by Brill (1) is, "An acute infectious disease of unknown origin and unknown pathology, characterized by a short incubation period (4—5 days), a period of continuous fever accompanied by intense headache apathy and prostration, a profuse and extensive erythematous maculo-papular eruption, all of about two weeks' duration, whereupon the fever rapidly ceases, either by crisis within a few hours or by rapid lysis within three days, when all symptoms disappear."

A definite incubation period varying from two to fourteen days is noted in the histories of somewhat more than 50% of cases. Malaise, anorexia, constipation, lassitude and discomfort in the head are the common premonitory symptoms. The onset is often difficult to determine in this group of cases, but is frequently associated with a marked increase in the headache or with nausea and prostration at the time fever begins. In the many cases where onset is sudden, chill or chilly sensation is the common symptom of invasion. Prostration and headache follow within a few hours and fever is already present. The chill may recur on two or three successive days or on alternate days.

Headache is the most constant and prominent single symptom. It appears at the onset and persists throughout until defervescence. The pain is general and in severe cases may be associated with rigidity of the neck and a distinct Kernig's sign. Mental clouding, varying from simple loss of interest to deep stupor, may accompany the headache. Delirium is rare. Prostration with extreme objection to movement, either active or passive, is a striking-symptom in most cases. The degree of prostration is often out of proportion to the amount of fever.

The physical signs are from the first, suggestive. The patient's attitude in bed is that of complete relaxation. Any movement increases the headache so that he lies unnaturally quiet. When movement is undertaken it is performed slowly and with a minimum of head motion. The face often shows a pronounced malar flush. The eyes are frequently suffused. Photophobia is not often present. The tongue is coated, in severe cases it may be dry and brown.

The skin presents the most constant and striking of the physical findings. Between the fifth and seventh days of the disease a macular or macula-papular erythematous rash appears. This may be preceded by a general hypermic blush. The eruption is abundant, appearing on the abdomen and back, spreading rapidly over the trunk, arms and thighs. In many cases the forearms, legs and neck show the eruption, rarely, the palms and soles. The face is not involved. The lesions are pin-head to pea-size, roughly round or oval, irregular in contour, a dull red in color and are not blanched by pressure. Not infrequently adjacent lesions will coalesce to form spots as large as a dime. The rash reaches its full development within 36-48 hours, not appearing in crops as does the roseola of typhoid. The spots remain until the fever terminates, then fade rapidly leaving a dull brown or yellowish stain. In some cases, usually those presenting high fever and profound mental clouding the rash is in part petechial rather than erythematous and the lesions show the varied color changes associated with blood extravasation.

The lungs and heart show nothing characteristic. (Bronchitis and occasionally, broncho-pneumonia may complicate the disease and present their characteristic signs.) The pulse is relatively slow, averaging about 90 per minute. The blood-pressure is low.

The abdomen shows no marked distention, tympanites is not a feature of the disease. The spleen is moderately enlarged being palpable in more than half the cases, the edge is rounded and soft.

The course of the fever is quite characteristic. The temperature begins to rise with the onset of symptoms and reaches its fastigium on the third or fourth day. From then on it remains constantly elevated from 102 to 104.5, with slight morning remissions, until the day before the critical fall when a precritical rise may occur. On the twelfth to fourteenth day, rarely as late as the nineteenth day, the temperature begins to fall. Defervescence may be by crisis within a few hours, or by lysis. In any case the fall seldom occupies more than sixty hours. Once down the temperature does not rise significantly again except in the presence of complications. With the disappear-

ance of fever the symptoms clear up with amazing speed so that a patient who one day was ill, miserable and stuporous, may on the day following be alert, comfortable and feel quite well. The rash likewise fades very rapidly and except where it has been petechial, disappears entirely in two or three days.

The prognosis is almost uniformly favorable. The leukocytes are as a rule moderately increased, the average count in Brill's cases being 9,394. Leukopenia is exceptionally present. The differential count may show a slight increase in the polymorphonuclear and large mononuclear cells. Eosinophiles are frequently absent. Since 1916 the most valuable laboratory aid to diagnosis has been the test originated by Wilson (5) and applied by Weil and Felix (6) to the diagnosis of European typhus. This is a nonspecific agglutination reaction carried out with the patient's serum and two strains of a *Proteus*-like organism cultured from the urine of patients with typhus fever. These organisms, designated "X2" and "X19" are agglutinated by the sera of typhus patients in high dilution. "X19" is agglutinated more constantly and in higher dilution than "X2." A positive test with a 1-80 dilution of serum is considered diagnostic. The reaction appears early in the second week of the disease and becomes increasingly strong thereafter. Approximately 90% of cases of endemic typhus give a positive test. A point in technique which is worthy of note is, that organisms grow for a number of generations on sugar free media frequently lose their agglutinability, this may be restored by growth on dextrose agar (7).

The causative organism of endemic typhus is beyond doubt identical with that of European typhus. Animal experiments show that infection with the virus of European typhus protects against endemic typhus and conversely, infection with the virus of Brill's disease protects against European typhus. The exact nature of the organism is at present unknown, the great preponderance of evidence is in favor of *Rickettsia prowazekii* but in the absence of successful cultural experiments there is no absolute proof that this organism is identical with the typhus virus.

The epidemiology of endemic typhus is

much less clear than that of the European type of the disease. Nicolle (8) in 1909 showed that the body louse was capable of transmitting typhus fever. Innumerable observers during the past seventeen years have confirmed his observations and proved that this insect is the chief vector of the virus, aided perhaps at times by the head louse. In endemic typhus no such relation between infestation and infection has been proved. In fact a striking thing in the reports is the absence of insect infestation of the patients. The vector of endemic typhus is probably not the body louse or the head louse, but is at the present time unknown.

Of the pathology of endemic typhus very little is known owing to the extremely low mortality. It probably corresponds closely to that found in European typhus.

The diagnosis of endemic typhus may be difficult at the start. When the onset is abrupt with chill it may be mistaken for malaria. Failure of the fever to respond to quinin and the appearance of the rash on the fifth or sixth day should serve to differentiate. From typhoid, the rapid onset, character of the rash, leukocytosis, negative Widal reaction, blood and stool cultures, together with the short duration, make differentiation relatively simple. From Dengue, the severity of the headache, continuity of the fever, nature of the rash and leukocytosis should serve to separate it even in the presence of an epidemic of dengue. The differences from meningitis, measles and rubella are so striking that no comment is necessary. Some cases of severe secondary syphilis may present headache comparable to typhus and a rash which may be in some respects comparable, but fever and prostration of like degree are never present.

CASE REPORTS

Case 1. C. C. W. Hosp. No. 1076. Adm. Sept. 20, 1916. Disch. Oct. 4, 1916 m. age 38. Barkeeper.

Complaint: Headache, general malaise.

Family History: Unimportant.

Past History: Diseases of childhood. None of the severe infections.

Present Illness: Onset 10 days ago with chill, followed by intense headache, general malaise and prostration. Has had no remission of these symptoms since onset.

Physical Examination: Temp. 102, Pulse 96, Resp. 20.

Fairly well nourished and developed man lying quietly in bed, profoundly prostrated and almost stuporous. Over the entire body with the exception of the face, hands and feet there is a profuse dark red macular eruption which does not blanch on pressure and which shows a distinctly hemorrhagic quality.

The head is negative. The eyes show some conjunctival injection. The nose and mouth are essentially negative. The thorax and lungs show nothing abnormal. The heart sounds are weak with a soft systolic murmur at the apex. The abdomen is normal, the spleen not felt.

The urine shows a trace of albumin with numerous hyaline and granular casts.

The Blood: W. B. C. 15,200 on admission. Malaria, negative.

Sept. 21, 1916: Temp. 102. No change in condition. Widal, negative.

Sept. 23, 1916: Temp. 103 today.

Sept. 24, 1916: Temp. 101.2. W. B. C. 9,600. Polys 52%, L. M. 10%, S. M. 33%, Trans. 5%.

Wassermann, negative.

Sept. 25, 1916: Temperature reached normal today falling from 101.2 at noon yesterday to 98.2 at noon today. General condition remarkably improved. Rash fading.

Case 2. M. D. P. Hosp. No. 9645. Adm. July 27, 1919. Disch. Aug. 9, 1919. Age 58. Liveryman.

Complaint: Headache, aching of back and limbs, chills.

Family History: Negative with reference to present illness.

Past History: Pertussis at 12, measles at 18, mumps at 27, influenza one year ago.

Present Illness: Onset one week ago today with headache and general malaise which were followed in a few hours by a chill lasting about half an hour. After the chill there was profuse sweating following which the patient became drowsy and has remained in this state. There was a second chill on the following day, fever of undetermined amount has been present since onset. Headache has been persistent and severe, flushing of face and body appeared two days ago, a rash over the body appeared yesterday.

Physical Examination: Temp. 103, Pulse 96,

Resp. 22, B. P. 125/80.

The patient is a robust man of medium height lying quietly in bed, complaining of headache, backache and pain in the thighs. He looks quite ill. The face is flushed, the ears cyanotic, there is a general hyperemic flush over the entire body. Over the abdomen and flanks and to a less degree over the chest, back, arms, forearms, thighs and legs is a closely set macular eruption, over the back this rash is petechial. Nowhere does the color disappear on pressure. The macules vary in size from a pinhead to a dime, and in color from a dim pink to purplish red. No itching or desquamation. The eyes show marked suffusion of the conjunctiva. The tongue is heavily coated and tremulous. The lungs and heart are negative. The spleen is palpable at the costal margin.

The urine showed nothing of importance. The blood showed 80% hemoglobin, 3,560,000 red cells, 10,300 leukocytes, the differential count, 82% polymorphonuclears, 3% large monuclear cells, 15% small mononuclears. No malarial parasites found.

July 28th. Temp. remains elevated. Headache worse today, neck moderately rigid, suggestive Kernig. Lumbar puncture was done and a clear fluid obtained. Cells, 5 per cmm. Globulin, Tract. The Widal reaction was negative on this date.

July 30th. Temp. remains elevated, rash unchanged. Wassermann on blood and spinal fluid reported negative today.

July 31st. Temp. today reached 104.4. No change in condition. Widal negative.

Aug. 2nd. Between noon yesterday and noon today temperature fell from 103.2 to 98.2. Marked improvement in patient's general condition.

Aug. 9th. Discharged, well.

Case 3. H. M. C., Hosp. No. 20797. Adm. Nov. 20, 1920. Disch. Dec. 12, 1920. Age 35. Grocer.

Complaint: Headache, drowsiness.

Family History: Negative with reference to present illness.

Past History: Measles, pertussis and chicken-pox in infancy. No other illness.

Present Illness: Onset three days ago with headache and drowsiness, felt feverish, no definite chill. Since onset has had fever of

unknown degree with great prostration and drowsiness.

Physical Examination: Temp. 102.2, Pulse 100, Resp. 24, B. P. 140/75. The patient is a slender, poorly developed man about 35 years old, complaining of headache, general malaise and drowsiness. There is a slight hyperemic flush over the skin of the body. The head is normal. The eyes show slight conjunctival suffusion, otherwise negative. Nose, negative. Mouth: Mucous membranes of good color, teeth fairly well preserved. Tongue heavily coated, tremulous. Pharynx, injected. The neck, thorax, lungs and heart are negative. The abdomen is slightly distended with gas, no tender areas. The spleen is felt finger-breadth below the costal margin. Genitalia and extremities negative. No pediculi found on patient or clothing.

The urine showed a trace of albumin, otherwise, negative. The blood showed 80% hemoglobin, 4,600,000 red cells, 8,150 white cells. Differential count: Polys 76%, large mononuclears 12%, small mononuclears 12%. Smears negative for malaria.

Nov. 21, '20: Temp. 104. Over the chest, abdomen and back, and to a less degree over the arms there is a profuse pink macular rash, the macules are pinhead to pea size, blanch only slightly on pressure, the edges are slightly irregular.

Nov. 22, '20: Blood culture of 11/20, sterile. Temp. remains elevated, condition unchanged.

Nov. 23, '20: W. B. C. 10,450. Polys 73%. Combined mononuclears 22%, transitionals 5%. No malaria. Widal, negative. Stool culture: Negative for typhoid-paratyphoid group.

Nov. 24, '20: Wassermann, negative.

Progress was uneventful. Temp. remained elevated between 102 and 104 until Dec. 1st when it fell by lysis to normal.

Case 4. H. R., Hosp. No. 21519. Adm. Feb. 13, 1921. Disch. March 8, 1921. Age 33. Traveling salesman.

Complaint: Headache and fever.

Family History: Negative with reference to present illness.

Past History: Measles, mumps, pertussis and chicken-pox in childhood. Smallpox in 1911.

Present Illness: First felt badly six days ago when he noticed slight headache, malaise and lassitude. Was constipated. These symptoms persisted until day before yesterday, when headache became much more severe, patient became nauseated and vomited, has been prostrated and has felt feverish ever since.

Physical Examination: Temp. 102, Pulse 83, Resp. 26, B. P. 104/78. The patient is a well developed and nourished man lying quietly in bed, looks ill. The skin is negative. Head and eyes show no noteworthy abnormalities. Nose, negative. Mouth: Lips dry, teeth good, tongue dry, tremulous, covered with a thick yellowish coat. The thorax, lungs and heart show nothing abnormal. The examination of the abdomen is negative, the spleen was not felt. The genitalia and extremities show nothing noteworthy.

The urine showed a trace of albumin, no other abnormalities.

The blood: Hemoglobin 80%, R. B. C. 4,204,000. W. B. C. 4,160. Malaria, negative.

Feb. 14, '21: Today there is a moderately profuse macular eruption over the thorax, abdomen and back. The lesions are small, discrete, red, and do not fade on pressure. Temp. reached 103 this morning. Blood culture made yesterday shows no growth.

Feb. 17, '21: Temp. 103. No change in rash or general condition. W. B. C. 4,880. Widal, negative. Blood Culture, (2/15) negative, Wassermann, xxxx.

Feb. 19, '21: Widal, negative. No change in condition.

Feb. 26, '21: Widal, negative (Typh. and Para.)

Feb. 27, '21: Temp. reached normal today after showing tendency to gradual diminution for past 3 days. Patient feels much better. Rash has almost disappeared, leaving a faint brownish discoloration. No lice were found on patient or clothing, there was no history of infestation. No antisyphilitic treatment has been given.

Case 5. J. J. B., Hosp. No. 24194. Adm. Oct. 22, 1921. Disch. Nov. 11, 1921. Age 45. Bookkeeper.

Complaint: Headache, pain in small of back and eyes.

Family History: Unimportant with reference to present illness.

Past History: Measles, mumps, pertussis and varicella in infancy. Influenza 3 years ago.

Present Illness: Onset 9 days ago with pain in head and lumbar region, fever made its appearance on this day. No chill, nausea or vomiting. Headache has been moderately severe, pain in eyes has been persistent. Does not know when rash appeared.

Physical Examination: Temp. 103.8, Pulse 86, Resp. 26. A fairly well developed and nourished man complaining of headache, photophobia and backache. The skin over the thorax, abdomen, back and arms is covered with a profuse red macular rash which does not fade on pressure. The head presents no abnormalities. The eyes show marked suffusion of the conjunctiva, extraocular movement is painful. Pupils react. Mouth: Lips dry, teeth fairly well preserved. Tongue heavily coated, tremulous. The neck, thorax, lungs and heart show nothing abnormal. The abdomen is flat, no tender points. The spleen cannot be felt. The extremities are negative.

The urine showed a trace of albumin but no other abnormality.

The blood: Hemoglobin 75%, R. B. C. 3,250,000, W. B. C. 8,800, Polys 77%, L. M. 12%, S. M. 9%. Malaria, negative. Widal, negative (Typhoid and Para a and b) Wassermann, negative.

Oct. 23, '21: Temp. 103.3. No change in condition. Stool culture of yesterday shows no Typhoid-Para. colonies.

Oct. 26, '21. Temp. fell by lysis today. Rash is fading. Symptoms have disappeared.

Oct. 27, '21: Stool culture negative (10/26) Widal, negative.

Case 6. E. H. R., Hosp. No. 27121. Adm. Aug. 8, 1922. Disch. Sept. 16, 1922. Age 58. Stock dealer.

Complaint: Headache, fever, general malaise.

Family History: Negative, with reference to present illness.

Past History: Usual diseases of childhood. No severe infectious diseases.

Present Illness: Onset 4 days ago with a severe chill, followed by sweating, severe headache and generalized abdominal pain. The abdominal pain disappeared after purga-

tion, headache and marked prostration have persisted, rash appeared this morning.

Physical Examination: Temp. 103.6, Pulse 88, Resp. 26. A well developed and nourished man lying quietly in bed, looks very ill. Face and entire body flushed. Superimposed on the general hyperemia is a coarse red macular rash which covers the abdomen, thorax, back, arms and thighs. The lesions are pea to dime size, dark red and do not blanch on pressure. Head: Nothing remarkable. Eyes: Conjunctiva deeply suffused. Pupils normal. Mouth: Teeth poor, tongue heavily coated, tremulous, pharynx red. Thorax, emphysematous, the lungs are hyperresonant and show scattered moist rales over both bases. The heart presents no abnormalities. The abdomen is not distended nor tender. The spleen is felt 2 fingerbreadths below the costal margin, very soft. The extremities are negative.

The urine showed a trace of albumin and a few scattered pus cells.

The blood: Hemoglobin 70%, R. B. C. 3,680,000, W. B. C. 3,700, Polys 70%, L. M. 10%, S. M. 20%. Malaria, negative. Widal, negative.

Aug. 26, '22: Temp. 103. No change in condition. Blood culture of 8/24 sterile.

Aug. 27, '22: Temp. 104. Blood culture of 8/25 sterile. Wassermann, negative. Condition same.

Aug. 31, '22: Temp. 103.6. No change in condition. Widal, negative. Typhoid and Para a and b.

Sept. 3, '22: Temp. reached normal today after falling slowly for 48 hours. Rash is fading leaving a brownish discoloration. Condition greatly improved. No lice were found on the patient or his clothing. No history of infestation.

Case 7. Hosp. No. 41620. P. B. R. Adm. Oct. 1, 1925. Disch. Oct. 20, 1925. Age 65. Liveryman.

Complaint: Chills, fever, headache, general aching.

Family History: Unimportant.

Past History: Childhood diseases. Typhoid fever at 11. Some dyspnea and slight edema of ankles for past five years. Has been steady drinker for many years, seldom intoxicated.

Present Illness: Onset 9 days ago with chill while at work, felt badly but continued work

and went back to work next day, during day developed severe headache and had a second chill. On the third day developed intense nausea and vomited, had another chill. Was treated with quinin for malaria but has gotten progressively worse with persistent headache, pain in the back and legs, anorexia and prostration.

Physical Examination: Temp. 101.2, Pulse 100, Resp. 22, B. P. 140/74. A well developed and nourished old man lying quietly in bed, looks very ill, stuporous but can be roused to answer questions. The skin of the face and entire body shows an erythematous flush which blanches in a striking manner on pressure. The face appears puffy. The head, ears and nose are negative. The eyes: Sclera and palpebral conjunctivae are much injected. Mouth: Lips tremulous, teeth dirty, many missing; tongue coated and furrowed, quite tremulous. Pharynx injected. Thorax: Looks emphysematous, general restriction of movement. The lungs are hyperresonant throughout the anterior and axillary portions. Over both bases there is slight impairment of percussion note. Over the right base behind there are scattered moist rales. The heart is enlarged to the left anterior axillary line, the sounds are feeble, there is a blowing systolic murmur at the apex. The abdomen is not distended, no tenderness. The spleen is felt at the costal margin. The extremities are negative except for a coarse tremor of the hands.

The urine showed a moderate amount of albumin and many hyaline and granular casts.

The blood: Hemoglobin 82%, R. B. C. 4,370,000, W. B. C. 9,600, Polys 74%, L. M. 8%, S. M. 16%, Trans. 2%. Malaria, negative. Widal, negative. Wassermann, negative.

Oct. 3, '25: Temp. 104. Patient stuporous. Superimposed on the general hyperemia is a profuse dark red macular eruption which covers the entire trunk, arms and legs. W. B. C. 10,650.

Oct. 4, '25: Temp. 104. Stupor continues. Hyperemia has faded, the rash is more pronounced and over the back many of the macules are distinctly petechial. There is marked rigidity of the neck today and Kernig's sign is suggestive. Lumbar puncture gave a clear

fluid under no increased pressure. Globulin, negative. Cells, 9 per cubic mm. Colloidal gold, negative. Weil-Felix, negative (X 2 and XI 9). Blood N. P. N. 42.8 mg.

Oct. 5, '25: No change in condition. Blood culture of 10/1 sterile. Wassermann C. S. F., negative.

Oct. 7, '25: Remains stuporous. Temp. 103.6. Widal, negative. Blood culture of 10/4 sterile. Weil-Felix, positive, 1/240. XI 9.

Oct. 9, '25: Mental condition improved. Temperature has fallen slightly, maximum, 102.

Oct. 10, '25: Temp. reached normal today. Great subjective and objective improvement. Rash fading. No lice have been found on patient or his clothing. No history of infestation.

Oct. 11, '25: Rash has faded leaving a dark brown discoloration. Weil-Felix, positive, 1/480.

Case 8. W. F. G. Hosp. No. 41895. Adm. Oct. 22, 1925. Disch. Nov. 1, 1925. Age 37. Grocer.

Complaint: Headache, soreness of scalp, general aching.

Family History: Negative with reference to present illness.

Past History: Diseases of childhood, typhoid fever as a boy.

Present Illness: One week ago was taken suddenly while at work with headache and soreness of the scalp. Went to bed, next morning felt better and went to work only to be forced to return to bed on account of headache and general malaise. Had no chill. Has remained in bed for past five days.

Physical Examination: Temp. 102.4, Pulse 110, Resp. 22, B. P. 105/70. A well developed and nourished man, mentally dull, almost stuporous. There is an erythematous flush over the lower abdomen and thighs. Over the abdomen and back there is a profuse red macular rash. The lesions vary somewhat in size, averaging 3-4 mm. in diameter, their color does not fade on pressure. The head is negative. The conjunctivae are suffused. The lips are dry and tremulous, the teeth good, the tongue coated and tremulous. The thorax, lungs and heart are normal. The pulse is full and soft, not dicrotic. The abdomen is slightly

distended with gas, no tender areas. The spleen is not felt but the area of splenic dullness is increased. Extremities, negative.

The urine showed a large amount of albumin, numerous granular casts and a few pus cells.

The blood: Hb. 75%, R. B. C. 4,672,000, W. B. C. 14,300, Polys 80% L. M. 7%, S. M. 10%, Trans. 3%. Malaria, negative. Widal, negative.

Oct. 24, '25: Temp. 102. No change in condition. Weil-Felix, positive, 1/240.

Oct. 26, '25: Temp. 101. No change in condition. Blood culture of 10/22 reported sterile. Stool culture: Negative for Typhoid-Paratyphoid group. Wassermann: xxxx.

Oct. 29, '25: Temp. reached normal today after a gradual decline during the past 48 hours. General condition much improved. Rash has almost entirely faded. No lice were found on the patient or his clothing. No history of infestation.

These cases all present the typical picture of endemic typhus fever and were diagnosed as such during the course of the disease. Unfortunately the Weil-Felix reaction was carried out on only two of the series but the clinical picture in these two was no more characteristic than in the six preceding. A point of interest is that none of these patients were infested with insect parasites.

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DISCUSSION ON PAPER OF DR. SYDENSTRICKER

Dr. James E. Paullin, Atlanta: Endemic typhus fever has been present in Georgia for quite a number of years. About thirteen or

fourteen years ago a series of cases occurring in Atlanta was reported by me before the Southern Medical Association and following the recognition of these cases a considerably larger group was collected; since this time the disease has not been at all uncommon. In our early series, which occurred among patients at the Grady Hospital, we were able to find in practically all of these patients infection with either the head or body louse; but as cases were soon found occurring in private practice, among a class of individuals in a higher social scale, no infection with the louse was discovered.

Many attempts were made to isolate the organism at that time, but without success. We were able to inoculate laboratory animals with the blood from cases of typhus fever early in the disease and after a period of incubation obtain a definite febrile reaction lasting a few days. Subsequent cross inoculation of these animals from known cases of typhus did not produce a febrile reaction in these animals. This led us to feel sure that we were dealing with true endemic typhus described by Brill.

Typhus fever is not a disease to be considered lightly. Fortunately there has so far been no mortality among the cases I have seen. Many of these patients, as described by Dr. Sydenstricker, have been acutely ill. One should always suspicion typhus in a patient who is suddenly seized with a chill or chilly sensations, headache, backache, high fever, delirium and the appearance on the second or third day of a rash, together with a palpable spleen and a leukocytosis. Should any question arise as to a diagnosis, blood serum sent to the State Board of Health for the Felix-Weil reaction will help in the solution.

Dr. Hal M. Davison, Atlanta: It so happened that while I was in Siberia with the Red Cross I had charge of a typhus hospital for some time, and later I caught typhus myself, so I am acquainted with the disease. Most of the patients I have seen with this disease in Atlanta were very ill. They did not have what is called "Brill's disease" but real typhus fever. In the countries where it is prevalent and epidemics are frequent the severity varies greatly. Some patients will have the typical Brill's disease and it is hard to keep them in bed. In other instances it is almost necessary to tie the patients in bed because they are so delirious. Sometimes in people of fifty or more they go through the disease in delirium and die just after the crisis. We have in this country a real typhus fever, and we should be on the lookout for it. When I returned from the war I did not think we had it, but Dr. Aven in Atlanta took me to see a case which was one of the worst

I ever saw. I am satisfied that we really have it, and that we often overlook it or call it typhoid.

Dr. Jack R. McMichael, Quitman: I am sure we have this endemic typhus fever, for I recently have seen three cases in our county which fits the picture Dr. Sydenstricker has given. All the cases have been severe, and the neuritis has been so acute that the patients have required an opiate. The doctor did not mention any treatment, but I wish to know whether the neuritis was so severe in his cases as to need an opiate.

Dr. J. M. Pocr, West Point: In 1920 we had almost an epidemic in West Point. Eight or ten cases developed, and some of them were quite severe. Some of the patients had to have strong hypnotics or morphin to enable them to get any rest at all. These were all typical book cases of typhus fever. The diagnosis was not confirmed by the laboratory at that time, but they were so typical that the physicians of West Point were sure they were dealing with typhus fever. We did have some blood examined, and the report came back that we were dealing with paratyphoid, but we doubted that for the cases were so typical of the book description in every particular.

About six months ago a young lady sent for me, who had just returned from Milwaukee. She had stopped in Atlanta to see Dr. Quillian there, and then came on to West Point. I saw her in violent delirium, and in three days she developed the rash. She continued semi-delirious and had to be aided in sleep, but on the fourteenth day her temperature dropped and we hoped she would get better. She went for two days without fever, but had no relief from the nervous symptoms, and no relief from the stupor. She had a dull stupor and responded only in monosyllables to questions. On about the eighteenth day she died, with the typical signs of meningitis. She was so stiff that we could almost lift her from the bed without any bending. I did a spinal puncture and sent the fluid to the laboratory. They reported to me that I was dealing with Brill's disease, but I thought surely it was meningitis for the symptoms during the last four days were typical of that disease, while during the first fourteen days they were typical of typhus.

I am sure we are having this disease with us all the time, and that we all see these cases quite frequently.

Dr. Eugene E. Murphey, Augusta: I think the paper is very timely, and it is well to recall to the older members of the Association that we have had endemic typhus in the State of Georgia for at least fifteen years, and it has been so recognized. Many of us can recall cases occurring even farther back than

that. I know that as far back as 1904 I saw these cases, which I did not recognize but considered a peculiar form of typhoid, with a peculiar rash. Many of the patients are very sick and some seem to be on the verge of dissolution. I have never had a fatality in any of my cases, but have feared it in many instances. One peculiar thing is that one of my patients went to West Point and spent a couple of nights there, returned to his home in Augusta, and came down with typical typhus. He properly belongs in the West Point series and not in ours.

I do not like the term Brill's disease because to the mind of the layman and the profession it is a placebo. What we have is typhus fever. We might as well recognize this, and realize that we are dealing with the genuine article, and not with any attenuated form of a serious malady.

Dr. V. P. Sydenstricker, Augusta (closing): I wish to thank the doctors for their discussion. I think Dr. Paullin reported the first case of this disease from the south that got into the literature. My object in reporting these few cases was to bring the subject to your attention. As Dr. Murphey says, it is endemic. It is not confined to any class or section, but is as frequent in the rural districts as in the large centers of population.

With regard to treatment, we treat these patients expectantly, as we would typhoid. We make an effort to reduce the temperature with cold sponges; when they are too stuporous we resort to hypodermoclysis to keep up the necessary fluids. The pain is severe, and often those in the legs can be interpreted as sciatica. Sometimes morphin is the only drug which will relieve the pain. I have used sodium bromide and chloral and this has been sufficient in most instances. Most of the cases have been relatively mild, but three were as severe, and manifested all the physical and other signs, as the European typhus. While we have had no fatalities we have been much worried about some of the cases for several days, fearing that death would occur.

I thank you.

OBSERVATIONS ON ETIOLOGY OF TUMORS

James B. Murphy, New York (Journal A. M. A., April 24, 1926), concludes his report on his work with chicken sarcoma as follows: Anaerobic "cultures" of chick embryo and rat placenta have proved just as effective as so-called culture of malignant tumors in activating chloroform treated filtrates of a chicken sarcoma. The necessity of assuming a cultivated living organism in the interpretation of Gye's results is eliminated.

UNUSUAL MANIFESTATIONS OF MALARIA

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That the malaria parasite is capable of causing a definite succession of characteristic symptoms is so well known as to need no elaboration. That the parasite often is the principal factor in causing atypical symptoms, as for example hemorrhagic or black-water fever, is less well known except to those practitioners who live in malarial sections. That the parasite may produce many symptoms which masquerade under the guise of many types of other well known diseases has perhaps not been as much emphasized as other features of the great malarial problem.

Because of the necessity of correct diagnosis as a guide to treatment, it is important to know in how unusual ways malaria may manifest itself.

According to Manson¹, the following actual erroneous diagnoses have been made on purely clinical grounds without examination of the blood, but subsequently proven to be manifestations of infection with aestivo-autumnal (sub-tertian) parasites:

(1) Cerebral forms: Sunstroke or heat stroke, mental derangement, hysteria, alcoholism, aphasia, epilepsy and meningitis.

(2) Abdominal forms: Dysentery-amebic or bacillary, intestinal obstruction, appendicitis, biliary colic, cholecystitis, hemorrhagic pancreatitis, liver abscess.

(3) Pulmonary forms: (Malarial pyrexia with pulmonary congestion and myocarditis.) Bronchitis, pneumonia, valvular heart disease.

(4) Cases with cutaneous petechia have been mistaken for measles, endocarditis and purpura.

(5) Icteric cases have been confused with obstructive jaundice.

(6) Cachectic cases have been diagnosed acute nephritis, pernicious anemia or tuberculosis.

(7) Edematous forms: A general edema

may be the only outstanding sign in heavy sub-tertian infections.

In addition to these numerous bizarre or masquerading forms noted by Manson Brosius² has reported a case closely simulating tetanus, and Marinesco³ a case of myoclonic encephalo-myelitis of malarial origin, closely simulating lethargic encephalitis.

Brosius' case reported from the Republic of Colombia was that of a boy of 10 who was known to have had several previous attacks of fever, and who for three days before admission to the hospital had slight fever, headache and drowsiness. Two hours before admission to the hospital he was taken suddenly ill with high fever, convulsions and unconsciousness. When admitted he showed opisthotonos retracted head and gave vent to frantic cries. He showed a typical risus sardonius. There were intervals of relaxation followed by clonic spasms especially on handling. No site of infection for tetanus was to be found. The spleen was hard and extended to the umbilicus. The blood contained both malignant and benign tertian parasites and it is interesting to note in the differential leukocyte count that the large mononuclears numbered 18.5%.

Under quinin—which in this case was given intravenously—the symptoms rapidly ameliorated and by the fourth day had completely disappeared.

Marinesco's case was that of a young woman in whom the diagnosis of epidemic encephalitis had been made because of myoclonus, delirium, dysarthria, indefinite fever and a negative spinal fluid containing 10 cells. The blood, however, contained sub-tertian parasites and crescents, and at autopsy punctate hemorrhages were found in the cortex, corpus striatum and especially in the gray matter of the spinal cord. In the capillaries of the brain which were dilated, the red blood cells contained many parasites and in some of them nearly every erythrocyte contained a parasite. In the other portions of the body no parasites were found and Marinesco's conclusion was that the parasites had localized principally in the nerve centers of the brain, medulla and spinal cord.

The surgeon as well as the internist has

¹Read before the Medical Association of Georgia, Albany, Ga., May 13, 1926.

need to bear in mind abdominal forms of malaria. Thus, Deaderick has emphasized the importance of differentiating these types from the so-called surgical belly and reports a case of tertian malaria simulating appendicitis. The patient, a man of 34, was suddenly seized with severe abdominal pain. There had been no history of previous attacks. The right abdominal wall was rigid and the thigh flexed at right angles to the body. He had vomited twice. There had been no chill. Light pressure over the abdomen elicited intense pain. The temperature was 99.2, the pulse was 90. Later the temperature rose to 106 and there was a chill. The following day the paroxysm entirely subsided. This case proved to be due entirely to a manifestation of tertian malaria.

The relation of malarial infection to insanity is of decided interest. A. T. W. Forrester⁴ has reported in the London *Lancet* interesting figures concerning this subject. He writes that in Macedonia, malaria was recorded as far and away the largest factor in the causation of mental diseases among British troops. He separates the cases into two groups: In the first group were placed the cases of insanity associated with a malarial attack itself and in the second group those occurring as the result of repeated attacks. The former were more acute and more nearly approximated severe delirium but offered a better prognosis. In this group he found 32 cases which exhibited almost any of the recognized types of psychosis but the most permanent symptoms were mental confusion and depression.

In the second group there were 70 cases which presented in varying proportions mental confusion or depression, the symptomatology of dementia precox and of delusional insanity.

Other evidences of central nervous system involvement were observed such as tachycardia, dyspnea on exertion, frequently associated with cardiac murmurs, exaggeration of superficial and deep reflexes and occasionally knee and ankle clonus. There were in addition four cases of single nerve paralysis, two involving the sub-trapezial plexus, the others the 3rd and 7th cranial nerves.

His conclusion as well as that of Masson

writing from St. Elizabeth Hospital, Washington, D. C., is that the toxins of malarial parasites frequently exhibit a selective action on both peripheral and central neurones. Definite proof of this is shown by post mortem findings of hyperemia of the vessels of the pia, of the subarachnoid perivascular and pericellular spaces, and plugging leading to punctiform hemorrhages. Masson regards neuritides, neuralgia, hyperalgesia, headaches and acute hyperpyrexial results as indicative of the effect of malarial toxins on peripheral and central nerve elements.

I have had occasion to observe three unusual types of response to certain tertian infection. The first case was a man of 35 from southwest Georgia who had suffered several attacks of amnesia. On different occasions in driving his car through the country, he would suddenly find himself in some remote section and would be unable to account for a period of several hours necessary for him to have arrived at the locality in which he found himself. The last attack which he had and which was the occasion of consulting me was on this was the occasion of consulting me was in wise: In company with a negro boy he set out from his home for a drive of several hundred miles to north Georgia. Very soon after leaving home he lost all recollection of what subsequently transpired. The negro reported that the patient continued to drive his car but appeared dazed and was thought by one restaurant keeper on the way to be drunk. However, with the aid of his companion the patient reached his destination and appeared confused. Next day he was normal and had no recollection of what had happened during the major part of the journey. There was slight fever but no chill or other usual manifestation of malaria. The blood contained tertian parasites. The patient was put upon intensive treatment. So far as I have been able to learn there have been no further attacks over a period of three or four years.

The second case was that of a man 48, a successful and energetic business man also from south Georgia, who had developed gradually a profound neurasthenia, who complained of fugitive pains about the distribution of certain intercostal nerves, and of feelings of numbness and tingling in the feet and

legs. An interesting objective finding was complete loss of both knee jerks and ankle jerks. It was, of course, essential to bear neurosyphilis in mind in this case. The pupils were entirely normal, there was no Rombergism and repeated examinations of the blood and spinal fluid gave no evidence of syphilis. Tertian malaria parasites were found in several different blood smears. The patient made marked improvement under systematic quinin therapy.

The third case was that of a man 52 also from southwest Georgia who exhibited all the characteristic signs of a profound melancholia with mental confusion. After coming to Atlanta for observation he exhibited a characteristic fever curve with chills at irregular intervals and sweats. Tertian malaria parasites were present in his blood. This patient was soon relieved of fever and chills under quinin but the mental manifestations were exceedingly tedious in clearing up.

The recognition of the fact that malaria is capable of causing so many diverse symptoms many of which simulate other well known diseases, and the recognition of the further fact that in the careful study of the blood we have a means for accurate diagnosis should impress upon all physicians the value and necessity of routine blood examinations. Many writers have emphasized the importance of such study. Thus, Deaderick writes: "Too often is the mocking equation: Fever=malaria=quinin employed to solve the diagnostic problems of warm climates."

Manson: "There is a marked tendency to regard and diagnose all fevers occurring in tropical countries or in individuals who have returned from tropical countries as malarial. Such slovenliness in diagnosis must be strenuously avoided. It is apt to become a habit which sooner or later is bound to have disastrous consequences."

We of the state of Georgia have to deal more or less constantly with all forms of malarial parasites. Especially is this true of that part of the state below a line drawn from the northern boundary of Richmond County to the southern boundary of Muscogee County which line follows the southern boundary of the Piedmont Plateau. In 1923

more than 9 out of 10 deaths from malaria in the state occurred below this line. However, there is not a county in the state where the subject of malarial symptomatology is not of practical interest. The greatly increased transportation facilities of the automobile provides a constant fluctuation of a large percentage of the population and it has long been known that the migration to a higher altitude of individuals harboring parasites frequently encourages their renewed activity.

That there were 29,022 deaths from malaria in the state of Georgia for the six years ending 1924 is sufficiently indicative of the seriousness of the disease. In addition, we may be sure that a very much larger number of our citizens are suffering from impaired efficiency and bodily discomfort from this same disease.

In conclusion it is important to recognize that aside from the so-called typical and easily recognized manifestations of malaria there are many unusual ways in which malaria may manifest itself producing symptoms similar to many other diseases. It is important not only to identify those cases which are really the result of malarial infection but also not to diagnose as malaria diseases of other etiology. The safest protection from such mistakes is careful examination of the blood as a routine procedure.

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DISCUSSION ON PAPER OF DR. GAINES

Dr. J. O. Elrod, Forsyth: I think we are indebted to Dr. Gaines for bringing these matters to our attention. It is natural that a man interested in certain things should find those things first. Dr. Gaines being a neurologist, of course finds these symptoms first, but I think it is generally conceded that the nervous and mental symptoms are very prominent in this disease. Segas of Cuba reports that he has found malaria simulating all diseases, but most frequently those of the neurologic side. Aphasia, sustained attacks of cerebral symptoms, sometimes with hemorrhage. Albarran reports the case of a man aged fifty-five who was brought to the hos-

pital with a history of chills and fever for three weeks. Immediately after admission to the hospital the man became unconscious and paralyzed. Upon examination of the blood the plasmodium of malaria was found, and after the second intravenous dose of quinin the man cleared up. This shows that, as Dr. Gaines has said, the neurological manifestations are more tenacious than the other unusual manifestations, and when we find a case of any type that we cannot diagnose clearly for any reason, if we are not going through the usual routine and making complete examinations of the blood it behooves us to examine the blood for malarial parasites. Oftentimes this will clear up the unusual manifestations by giving insight to the diagnosis by finding the parasite.

I thank Dr. Gaines for bringing this to our attention. I am sure the paper will be helpful if we will follow his suggestions about examining the blood in all unusual cases.

Dr. J. G. Dean. There is one feature in the handling of quinine in the treatment of malaria which has not been referred to, which is that we not infrequently find patients who have an idiosyncrasy against this drug.

Of course we all regard quinine as the real specific in malarial treatment, hence when dealing with patients manifest intolerance therefor we must try to find a way to use it without at the same time punishing the patient.

I remember having during one summer four patients who as a result of even a grain of quinine would develop urticaria, or a pronounced rash with almost intolerable itching, thus making it so unpleasant to the patient that a choice between leaving off the drug or finding at once a positive antidote.

I have run across in literature what perhaps others of you have seen, but what I think has been used relatively little. I refer to Dilute Hydrobromic which in my hands has proven most satisfactory and prompt in counteracting such nervous symptoms of quinine as that referred to.

Prepare a solution in the proportion of one drachm of the dilute hydrobromic acid to the ounce of simple syrup and administer one table spoonful of this mixture every two to four hours and your patient will not only find no objection to the taste of the remedy, as it is quite pleasant, but will soon find complete relief from the ill effects of the quinine.

Dr. Joseph Yampolsky, Atlanta: I wish to mention the case of a child about four months old who was treated for several weeks for what was supposed to be tonsillitis. The nose and throat specialists advised removal of the tonsils. The child continued to have fever. After a careful blood examination we were

unable to find the parasite, but I thought that a little quinin would not hurt anyone, so I suggested that the child should be put on two-and-a-half grains three times a day. This was done and that child has never had another attack of fever. I mention this because in many cases, even if you do not find the parasite, it is well to give a little quinin. Living in the south as we do I do not think it hurts anyone to take a little quinin occasionally.

Dr. J. M. Anderson, Columbus: When I first started practicing medicine I started in the black lands of Florida, where the mosquitoes were very bad. I never had malaria, for I never had a chill; but I had a malarial cachexia and continually lost weight. At that time we used only quinin in some form, and calomel; that is still good practice, but since the caecodylate of soda has come into prominence I have used it considerably, and have also used arsphenamin in the treatment of malaria, both with good results.

Dr. Louis C. Rouglin, Atlanta: Malaria is a disease that interests all of us, regardless of the line we are in. There are three things that are characteristic of this disease: first, it is characterized by periodicity. If you will study your cases of malaria you will find that it has a periodicity of acute exacerbation of a certain line of symptoms. Second, we know it is due to the malarial parasite in the blood. Third, that we have an anti-periodic in quinin, so we have these three fundamental things on which to base our treatment. Unfortunately, the periodicity of malaria is not always evident, and also, as Dr. Bass stated this morning, it is very difficult at times to find the plasmodium in the blood because it does not inhabit the blood during all of its life. It is not only difficult to get a good smear, but one in which we can always find the plasmodium. I do not think *any* man can examine the blood and *always* find the plasmodium.

There is one other thing, and that is that in quinin we have a specific for the disease, and in cases where we have not found the plasmodium I think we are justified in using it empirically.

In the last few years my attention has been called to the fact that frontal sinusitis is a common disease in which, even if not due to malaria, quinin has worked almost miraculously in many cases. I think if specialists will bear this in mind they can often avoid frontal sinus operations in cases where a few grains of quinin will clear them up. I will not bore you with cases, but in one instance a man was sent in suffering intensely with frontal sinus disease. I refused to operate without knowing more about the case. After obtaining the complete history I put him on quinin, and he cleared up promptly without

any operation whatever. In another recent case a man came in who had had an intranasal operation done. He had frontal headaches for which he took codein. He had burned himself with hot water bottles, but was thankful for this in place of the pain. Careful examination by all methods failed to give me any excuse for opening the frontal sinus. The blood examination was negative, but I gave him ten grains of quinin the first night, twenty the next day, and on the third day he was cleared up entirely, for the first time in many weeks, from frontal pain.

Malaria manifests itself in many unusual ways, as we have learned this afternoon. The parasite is not at all times easy to demonstrate in the blood, but at all times it is easy to give what cures the malaria—quinin. I would urge that we keep this in mind, and in obscure cases where there are no definite signs for surgical interference we will often get results with quinin that we cannot expect otherwise.

Dr. T. F. Abercrombie, Atlanta: Those of you who are interested in the geographic distribution of malaria in Georgia are invited to inspect our maps which are on exhibition in the lobby.

Dr. Jack R. McMichael, Quitman: I am much embarrassed that Dr. Gaines has had to specify southwest Georgia. I live there and have much to do with malaria. I am ashamed of the fact that malaria is such an economic problem for our locality. I wish we were discussing preventive medicine instead of the treatment of malaria. The doctor mentioned a case of tonsillitis that cleared up under anti-malarial treatment. In one case of a child recently the mother wished to have the tonsils removed, but while being treated for malaria the symptoms were relieved. In many cases I have seen the tonsils and adenoids shrunken up under anti-malarial treatment.

I hesitate to suggest a remedy about which so eminent an authority as Dr. Bass cautions us, but in many cases I have found it necessary to give quinin intravenously. I have given several hundred doses, and have never yet had any serious results.

Dr. Thomas E. Rogers, Macon: I have had a little different experience than Dr. McMichael. The modern tendency, I think, is toward intravenous medication, and quinin when given in this way, especially in concentrated form, has a tendency to coagulate the blood and I consider it dangerous. I have seen at least one death from this cause in the seven and a half grain ampules, as put up by all the houses, of quinin dihydrochlorid. I would not consider giving it intravenously unless it was well diluted. I figure that this

amount should be given in at least 10 oz. dilution.

Dr. Sterling P. Holland, Blakely: I would like to know how many instances of hemorrhagic fever have been seen. In my experience with these cases I cannot give quinin in any form, and the only thing that has been of value is the antistreptococcal serum intravenously, as put out by Mulford, with large doses of fluid and hypodermoclysis. I use then various forms of arsenic, arsphenamine, neoarsphenamine, cacodylate of soda, or something like that.

Dr. A. J. Mooney, Statesboro: I always think it is well in these meetings when we consider the use of quinin in the treatment of malaria to recall a paper which was given us several years ago by our esteemed colleague, Dr. Eugene E. Murphey, on "The Menace of the Laboratory." Just a little while ago this was called to mind when I was called to attend a patient with a possible surgical condition. We kept the patient in the hospital for one or two days; I had the blood examined several times for malaria, and always got a negative report. Finally I called to mind an incident between a laboratory man in Georgia and a medical student. A patient had the symptoms of malaria and the laboratory was asked for a report. It was negative for malaria. They made another examination, and it was still negative for malaria. This happened several times and then the laboratory man said, "Doctor, suppose you were to inspect that beautiful lawn over there, if you inspected a spot the size of a teacup and found no grasshoppers would you say there were no grasshoppers on the lawn?" Under the anti-malarial treatment our case immediately got well. We want to remember that we must not put too much confidence in a negative laboratory report, for the malarial plasmodium will not always be found under the microscope and lead to a negative report.

I would like to have someone report on the occurrence of quinone poisoning. I have never seen an instance of this, but remember that during the war an order came out against the combined use of aspirin and quinin for fear of the development of poisoning.

Dr. Lewis M. Gaines, Atlanta (closing): I feel that most of the discussion has had to do with the treatment of malaria, on which I did not touch, and only two of the gentlemen really discussed my paper.

I called attention to the fact that malaria is very likely to masquerade. In our part of the state malaria is not particularly common. Those in the southern part of the state have to do with malaria so much that they are constantly on the alert about these things. I feel that coming from the southern part of the

state, as so many people do, particularly in the summer, the change in altitude will often bring out a latent malaria. That is well known, but when it occurs unless the case is typical there may be some difficulty in deciding just what the difficulty is. There may be many symptoms that appeal to the internist as well as the surgeon, and possibly to men in other lines of work.

I do not consider that anything I said was to be considered as meaning to depend entirely on the laboratory. What I meant to say was that individuals in whom there was a possibility of malaria should always be subjected to blood examination, perhaps many times. If there is a high mononuclear count in the blood this should put us on the proper trail. If the blood is negative it by no means rules out malarial infection. I feel that it is a mistake to proceed with the therapeutic test in all cases without any previous laboratory test whatever.

I should like to have Dr. Bass answer the question in regard to hemorrhagic, or "black water" fever, and in regard to Dr. Mooney's question.

THE USE OF SODIUM CACODYLATE IN MALARIA*

EUGENE E. MURPHEY
Augusta

In presenting the opinions and conclusions in the following paper, the author lays no claim to any great originality, inasmuch as the belief that arsenic and its derivatives are useful in paludism has long been held by medical observers and authorities, but only claims a persistent attention to the action of this particular drug over a period of two decades.

While the malarial fevers are no longer the frightful menace which they were in Georgia, there is still quite enough to fix and hold the attention of those of us who live on the seaboard or coastal and alluvial plains. It has long been believed and experience has seemed to justify the belief, that in many of the graver forms of malarial infection, notably the algid, comatose and hemorrhagic types, quinin is frequently inefficacious and in some instances is definitely harmful. Ineffica-

cious, because of the necessity for an agent which acts more quickly than does quinin and which may be administered intravenously in those cases which can not retain anything by stomach, or whose coma, prostration or delirium precludes the possibility of administration of remedial agents by mouth.

The administration of quinin intramuscularly was attended so frequently by the production of sterile sloughs and the administration of the same drug intravenously by profound collapse and symptoms resembling shock, even in some cases by fatalities, that the author was impelled to attempt to find some agent which would promptly clear the blood stream of parasites without the untoward effects above mentioned.

Cacodylic acid was discovered by Bunsen in 1843 and was thoroughly studied at that time as regards its physical and chemical properties, but the possibility of making use of it and its sodium salt was first suggested by Prof. A. Gautier¹ in 1899.

It is universally conceded that cacodylic acid and its salts are but feebly toxic, which permits of their administration in colossal doses compared with the older forms of arsenic. The use of sodium cacodylate has become very popular, at least in this part of the world, within the last decade, but its administration has been more largely confined to those skin lesions in which arsenic would be beneficial, in the anemias, and in certain forms of syphilis; its value, as we see it, in the malarial infections being but slightly stressed. Even so late a text book as the Billings-Forscheimer Therapeutics of Internal Diseases makes no mention of the possible use of sodium cacodylate as an anti-malarial agent.

In fact, the only definite report of the use of sodium cacodylate in malaria in anything like the doses which we advocate is by Ravaut² and he has used it in combination with quinin, which invalidates any opinion formed as to the efficacy of this drug when used alone.

We first began the use of this drug in 1906, with a very considerable amount of trepidation, administering it intramuscularly in cases of black water fever and in cases of algid and comatose malaria brought into the University Hospital from the swamps and lowlands of the Savannah Valley. Our initial doses were

*Read before the Medical Association of Georgia, Albany, Ga., May 13, 1926.

²From the Department of Medicine, University of Georgia.

limited to one or two grains, three times daily, and with apparently beneficial results. Year by year, as we became convinced of the low toxicity of the drug, we began to increase the size of the dosage and with increasingly satisfactory therapeutic effects. With the wider adaptation of intravenous therapy that method of administration was adopted and has been persisted in for the last ten years. In the beginning as soon as the patients became able to take quinin, it was added to the treatment, and the arsenic withdrawn, but the problems presented were of such interest and the experimental material sufficiently abundant to enable us to test out a large number of cases in which no quinine was administered.

Our present method is to administer thirty grains of sodium cacodylate intravenously, divided into four doses of $7\frac{1}{2}$ grains each, at six-hour intervals until the parasites have entirely disappeared from the peripheral blood, and this usually occurs by the end of the fourth day, after which the dose is halved and carried on for a fortnight. There has seemed to those of us who have followed this method of treatment to be no greater tendency to relapse or recrudescence after the arsenic is discontinued than is usual after the administration of quinin. There have been practically no reactions which were worthy of note or comment and they are very decidedly less to be feared than is the case in the intravenous administration of quinine.

Ocasional nausea and vomiting, diarrhoea, abdominal cramps and persistent complaint of a garlicky odor of the breath and metallie taste are the most prominent toxic symptoms observed.

In cases of extreme urgency we have administered fifteen grains intravenously as the initial dose and repeated it in six hours.

From none of our treatment have we had any of the skin rashes which so frequently occur with arsphenamine or after the use of stovarsol.

We have come to believe that in small doses we are able to induce provocatory stimulation somewhat similar to that occurring in spirochetal infections. In several cases where the question of the diagnosis of malaria was pressing and where the most careful repeated

examinations of films and thick smears failed to reveal the presence of parasites the administration of five to seven grains of cacodylate followed by examination of the blood at two-hour intervals for ten hours revealed the presence of sexual forms in the peripheral blood. In several other cases, afebrile but presenting symptoms suggestive of chronic malaria, the injection of a provocative dose as above described was followed by a rise of temperature, but without demonstrable parasites in the blood stream, which rise of temperature would follow several successive injections after intervals of two or three days; and while it is not justifiable to draw any conclusions from this phenomenon it is to our minds at least sufficiently suggestive to induce us to offer it here for discussion and for subsequent confirmation or refutation by interested observers.

It is realized that the opinions which we have reached in regard to the efficacy of arsenic in certain types of malaria is rather directly contradicted by the works of many competent investigators, notably Muhlens and Kirshbaum³, but there has been so great a uniformity of results in the cases which we have studied, that it seems desirable to reopen what may, perhaps, be regarded by many as a closed incident in the study of the malarial infections.

We are not advocating the abolition of quinin therapy, but we believe that in many cases of the severe types of malaria, where no time is to be lost, we have in this drug, in adequate doses, an agent which is capable of at least temporarily arresting the progress of the disease, and in a considerable number of cases where, for purposes of observation, no quinin was used a permanent cure seemed to have been effected.

As to what constitutes an adequate dose, it is believed that thirty grains in twenty-four hours is the minimum amount which will cause the desired results.

No proper comparison between the action of this agent on the Tertian organism and the aestivo-autumnal organism can be made at this time, inasmuch as the great majority of the cases that are treated by this method were those of malignant aestivo-autumnal fever, but sufficient experience has been acquired in

dealing with tertian infections to justify the belief that they yield more readily than the others. No experience whatsoever has been had in the administration of this agent in quartan fever since it is exceedingly rare in the locality where these studies have been carried out. The advantages claimed for the use of sodium Cacodylate are: That it may be administered in relatively enormous doses in cases of malaria where quinin can not be given by mouth; that its low toxicity and its freedom from reaction makes it a more desirable drug in emergencies than quinin administered intravenously; that it is an acceptable substitute for quinin in cases of idiosyncrasy or intolerance.

No case histories, charts or diagrams are presented with this paper, the object of which is rather to stress a certain point of view and to stimulate discussion and further research and investigation. However, many of the case histories upon which these opinions and conclusions are based are a part of the records of the University Hospital and will be incorporated into a more comprehensive article suitable for the leisurely review of those who are interested.

One of the difficulties associated with the routine treatment, so-called standard treatment, of malaria is that in many instances as soon as the individual affected with the disease begins to feel definitely better he is very apt to discontinue the use of his drug only to pay for his carelessness by subsequent recrudescence of his infection. In cases under hospital or private control they will return at set intervals for an intravenous injection with a certainty of results not to be expected by somewhat haphazard self-medication which they carry on at home.

It has been my custom in those cases where arsenic alone was used to administer thirty grains daily at six-hour intervals until the peripheral blood is free of parasites, then to administer fifteen grains a day for the next week, and for the next two weeks thirty grains a week, after which they have seemed to remain free from infection.

In those cases where a persistent follow-up, as above indicated, can not be carried out, they have been placed upon the standard treatment as soon as the parasites have

disappeared from the blood stream.

SUMMARY

(1) It is the belief of the writer that sodium cacodylate in proper dosage will clear the blood stream of malarial parasites and cause a cessation of all symptoms.

(2) A sufficient number of cases have been studied in which arsenic alone was used to convince the writer that it will by itself permanently cure malarial fever.

(3) It is not germane to this discussion whether it acts directly upon the parasite or merely by stimulating phagocytosis.

(4) That to attain the results described not less than thirty grains should be administered in each twenty-four hours.

(5) That it is less toxic when administered intravenously than is quinin, is more efficient than arsphenamine and less apt to produce a rash than is stovarsol.

(6) That it is becoming increasingly apparent that quinin therapy alone is not the solution of the cure of malaria and a further study of the action of the arsenicals, together with that of iron, is indicated before the problems which confront us will be solved.

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DISCUSSION ON PAPER OF DR. MURPHEY

Dr. M. A. Clark, Macon: I wish to add a little experience with reference to the benefit of cacodylate of soda in the treatment of malaria. I have used it only in a case in which the idiosyncrasy to quinin was such that we could not get the patient to tolerate it by any methods, the hydrochlorid or any other form. In my desperation I resorted to cacodylate, not intravenously but hypodermically. I did not attempt the large doses suggested by the essayist. If it is true that patients will tolerate those doses of arsenic well, then either the pharmacologists' experience for years is wrong with reference to arsenic, or malaria creates a tolerance for arsenic that is marvelous. I congratulate the essayist on his splendid results, and no injurious effects, but gentlemen, I wish to insist that arsenic is still a poison, and we had better be a little bit wary in its use. I would prefer the slower

treatment myself. When I get malaria I will not send for my friend Dr. Murphey, although I love him very much. If I cannot take the quinin I will take the cacodylate in smaller doses, watching for untoward symptoms. Fortunately, we do not often have that idiosyncrasy. I still agree with the suggestion of our distinguished friend, that it is best given intramuscularly. Gentlemen, we are playing too much with the veins these days. Age may make me too conservative, but I wish to issue a warning to the younger men. Do not play too much with the veins, and do not get the idea that these remedies are harmless. The revised pharmacopeia gives the average dose of cacodylate of soda as one grain. There must be a reason for that. Go carefully, and watch the organs in which you are likely to get bad results. Remember the advice of the old professor who told his graduating class, "Do not make your patients fight you and the disease too."

Dr. Henry R. Slack, LaGrange: A statement has been made about quinin that I wish to contradict. I am living evidence of the fact that quinin does do harm sometimes. Some years ago I took a vacation down on Cumberland Island and contracted malaria. I came home and was given quinin. Within three days the symptoms of malaria all disappeared, but left me deaf, almost entirely so. Three weeks later the malarial symptoms reappeared. I told the physician who was attending me that I would rather die than be entirely deaf. That was before the days of cacodylate of soda, and the doctor gave me arsenic. The result was good, for I have never had malaria since. The deafness disappeared to a certain extent, but it is still marked and is evidence that quinin does do harm at times. It cured me of malaria, but I have never thoroughly recovered from the deafness. The arsenic relieved the malarial symptoms permanently after the quinin had given it a body blow.

Dr. R. L. Miller, Waynesboro: I wish to thank all three of the essayists on malaria this morning for their excellent papers. I agree fully with Dr. Bass that in quinin we have the one specific for malaria. Unfortunately, there are many persons in whom quinin produces a variety of unpleasant symptoms. As to the urticaria caused by quinin, I long years ago found out that the one cure for this was more quinin. The nervous symptoms that follow quinin can very easily be relieved by any sedative, but there are persons who cannot take quinin because of the peculiar effect it upon the respiration. In the cacodylate of soda we have an excellent substitute. Tyson, in his 6th edition, gives credit to Dr.

Bass for the statement that we frequently give quinin without results because the malarial organism is hidden in the various capillaries and organs, and he recommends 1/100 grain of nitroglycerine in connection with the quinin. I have tried it repeatedly and it works well.

I also wish to say that I am not afraid to use the cacodylate of soda in the dosage Dr. Murphey recommends. I have used it frequently and have had no bad effects whatever.

Dr. Charles C. Bass, New Orleans (by invitation): There are several points that have been raised to which one might refer, which are very interesting.

One thing I wish to call to your attention is the fact that many cases are not simply malaria, the patient may have malaria and other diseases also. In the cases of peculiar behavior we all see just because the malarial parasite is found in the blood it does not mean that all the symptoms are necessarily due to malaria. In southwest Georgia many people are affected with malaria, and if they develop pneumonia or are injured they also have the malaria. In those cases you cannot expect the course of the disease to be the same as it would be in malaria alone.

Regarding the treatment by the use of arsenic, especially cacodylate of soda intravenously, I had no idea that it is at all safe to give that quantity of cacodylate of soda, and am surprised that it can be given for any length of time in that quantity. If it is as safe as Dr. Murphey's experience indicates, and as effective, then we have another very effective remedy for malaria. There is this to be said, whether or not it is as safe given intravenously as quinin given in the ordinary way, we would have to hesitate a great deal before we could employ it as much as we do quinin. I think we would have to hesitate for we are playing with fire in giving anything intravenously. I think that giving salt solution intravenously is not entirely harmless, and especially is this true of putting drugs of any kind into the blood stream. I agree that there is always danger in administering drugs intravenously, and believe that we should hesitate a great deal before taking so great a risk with the life of the patient, especially when so far as malaria is concerned we can get as good results by giving simple, harmless quinin by mouth.

A question was raised in regard to hemoglobinuric fever. I confess that I have not had enough experience to know just what treatment should be pursued. I know the only purpose we have in giving quinin is to kill the malarial parasite in the blood stream.

These parasites are present up to 40 and 60 per cent of the cases on the first day in hemoglobinuric fever, but after that they usually disappear. We know that quinin tends to increase the hemoglobinuria, and one would hesitate to give it in the beginning. After the first period has passed I think there is a tendency to get the patient under quinin, and keep him under it even longer than for ordinary malaria, so that he will never have the hemoglobinuric fever again, but what to use in the preliminary period I do not know.

With regard to the failure of quinin, or the difficulty of giving quinin and the large number of individuals who cannot take it, I believe much of the disease causing inability to take quinin is a disease affecting the physician as much as the patient. My answer to the patient usually is, "Take your choice. Will you have malaria or quinin, which hurts the most?" I think there is no difficulty about deciding which produces the most discomfort, and which is the most dangerous to life. It is true that some persons are made very uncomfortable by doses of quinin sufficient to cure malaria. Those persons should avoid getting malaria, if possible, but if they develop it I know of nothing that cures it as well as quinin. There is this to be said, that most individuals who think they cannot take quinin *can* take it perfectly well. It is much better borne if a good purgative is given, and the patient is kept quiet in bed. My impression as to the rarity of the inability to take quinin has been gained largely from the observations at the New Orleans Charitable Hospital, in which a great many cases of malaria are treated. The routine treatment so far as I can remember has been thirty to forty-five grains of quinin a day. Everybody was given it, and there were very few instances of patients who could not take it. I know of none.

Dr. Eugene E. Murphey, Augusta (closing): In closing I wish to thank the gentlemen for their discussion. I am sorry that we cannot carry it on further, for among the men within the sound of my voice there are many whose point of view would be of great value, and we would all like to hear them express themselves.

With regard to the remarks of Dr. Clark, I will say that I began the use of arsenic with a little trepidation, and only by long continued use have I gained the confidence I now possess. I started with one grain three times a day, and with experience have worked up to the dose I now use. I agree that the veins are not a playground for children. I assume that the man who is giving intravenous therapy is well qualified to give it. In many cases I think there are indications for this drug, and that it can be safely administered in the dosage I have stated.

ULCERATIVE COLITIS*

GUY J. DILLARD, M.D.

Columbus

The subject of ulcerative colitis covers a very large field. My remarks therefore will be more or less limited to the non-specific or so-called idiopathic ulcerative colitis.

Ulcerative colitis is used to designate those cases in which the lower bowel is the seat of ulceration, not commonly associated with any specific cause. The specific causes in order of frequency are ameba, carcinoma, tuberculosis, stereoral, syphilis, arsphenamine, pellagra, leukemia, actinomycosis and leprosy. This great mass of causes must, of course, be ruled out before any case is considered idiopathic. I am not overlooking the fact that the diagnosis is very difficult in a great number of cases. It is too often the case that physicians have not the facilities at hand to make such procedure feasible; on the other hand, the patient is often convinced that too much time is being consumed and that the results are unsatisfactory, consequently he passes on to another physician. It behooves us, therefore, to be very careful to take a detailed history and make a careful examination. I include in a careful examination the process of using the finger for rectal examination, which affords more information than anything else, except the examination of the stool. I mention these two points in behalf of the busy general practitioner. I regret that time will not permit me to go further into the specific causes, but hope that the discussion which is to follow will touch on many points which have been omitted.

Bargen and Logan of Minnesota, have reported the isolation of an organism which they feel is responsible for 80 per cent of chronic ulcerations in the lower bowel. The organism resembles the pneumococcus, except that it is not bile soluble. On blood agar it grows as a hemolytic streptococcus. The organism is obtained directly from the depth of chronic ulcers, and occasionally from distant foci of infection such as the teeth and tonsils.

*Read before the Fourth District Medical Society, Newnan, Ga., June 15, 1926.

Lesions resembling those seen in human beings have been produced in dogs and rabbits. They have further prepared a vaccine from which, according to their report, remarkable results have been obtained. I am not in a position to disagree, nor to confirm, but, I must say, that I hesitate to accept all of their report at face value. Neither do I believe that any one organism is going to be found responsible for all cases of so-called idiopathic ulcerative colitis. During the past few years quite a few papers have been published regarding elective localization of foci of infection. Rosenow has probably done more work along this line than any other investigator, but he failed to produce ulcerative colitis in animals by injecting streptococci of various strains. Recently I have isolated the hemolytic streptococcus from the blood of a case of acute ulcerated and gangrenous colitis, the infection originating most likely in infected hemorrhoids.

Case report: P. Mc.—Male, age 21, machinist by occupation, admitted to the City Hospital on Nov. 4, 1925, in a stupor. About ten days prior to admission he began to suffer diarrhea and blurring vision. The number of stools varied from three to ten per day, occasionally blood streaked. Tenesmus marked. His vision failed rapidly and his condition became very serious. Past history and family history of no importance. The examination revealed a young boy lying in bed in stupor. Temperature had fallen from 103 to 98 degrees F. Respiration 20, pulse 120, blood pressure 220 systolic, 140 diastolic. Head, scalp, nose and throat showed nothing of importance. The pupils were fixed to light. While the eyes were under observation a slow dilatation was seen to take place followed by a contraction. The retina was detached in both eyes over anterior half, numerous hemorrhages in the retina in the region of discs. Neck rigid, suggestive Brudzinski. No enlarged glands. Heart enlarged with retraction of interspaces. There is a definite aortic murmur systolic in time. Lungs clear throughout. Abdomen not distended, but generally tender with no rigidity, no masses and no enlarged organs. Tender on pressure over lumbar area. Moderate priapism. Undescended left testicle. External hemor-

rhoids showing evidence of infection. Knee kicks absent. No Babinski. Upper reflexes increased. Blood shows 2,000,000 red cells with 60 per cent hemoglobin, 18,600 white cells with 90 per cent polymorphonuclear leucocytes. Blood and spinal Wasserman negative, no cells in spinal fluid. Blood sugar 200, urea 39.9 mg per 100 c. c. Blood culture positive for hemolytic streptococcus. Mercurochrome intravenously was of no avail. The blood pressure rapidly dropped to 180 systolic, 100 diastolic with a double aortic murmur and evidence of acute cardiac dilatation and intestinal paresis. He died eight hours later on the 15th day of his illness.

Autopsy Protocol—A young male about 21, measuring 5 feet 4 inches, with the usual post-mortem rigidity. Brain shows moderate edema, but no evidence of meningitis. Lungs negative, heart markedly hypertrophied with a flabby right side. Aortic arch dilated, with no evidence of syphilis. All valve leaflets normal. Abdomen, small amount of sanguinous fluid, no adhesions. Gall bladder distended and does not empty because of enlarged glands along the common duct. Liver and kidneys show multiple abscesses. Spleen is congested. The small intestine is normal throughout. The entire large bowel is edematous and shows several hemorrhagic areas. On sections there are several scores of superficial ulceration and gangrenous sloughs varying in size from 1 to 6 cm. in diameter. Many of the ulcerations are hemorrhagic. Examination otherwise show no noteworthy lesions.

Histological report by Dr. John Funke of Atlanta. The post-mortem shows a gangrenous inflammation of the mucous membrane and suppurating inflammation in the intestinal walls. There are small abscesses in the liver and a diffuse infiltration of polymorphonuclear leucocytes in the liver; the same condition exists in the kidney. A rather intense congestion of the spleen and small areas of necrosis. The heart shows nothing of any consequence. It is very difficult to state, but it is probable that the trouble originated in the intestine.

Case two is one of chronic ulcerative colitis in which I wish to stress a few points regarding duration and results in treatment. W. H.,

male, 43, diarrhea of eleven years' duration. In April, 1915, he began to suffer abdominal pains, followed by a severe watery diarrhea, occasionally blood streaked. Tenesmus. Evacuations varying from ten to fifteen or more in twenty-four hours. This condition has been remittent, lasting from two weeks to two months. He has consulted many physicians and has been thoroughly examined on several occasions by competent men. During his eleven years of treatment no ameba were found, but was treated for ameba off and on for nine months without results. His Wasserman has been four plus, and he has received nine injections of neoarsphenamine, followed by a course of mercury, without results. The other usual laboratory tests have all been negative. The examination shows a fairly well nourished male. The positive findings are prominent eyes, slight dehydration, lungs show a few large bronchial squeaks. Heart enlarged, no murmurs. Blood pressure 220 systolic, 130 diastolic. Abdomen negative except for a bulging in the left lower quadrant, which conforms to that of a thickened gut extending from the brim of the pelvis $9\frac{1}{2}$ inches upward. Rectum spastic, painful and scarcely admits the small finger. Marked clubbing of fingers and toes. Urinalysis, blood count, Wasserman, stool and gastric analysis negative. X-ray shows constriction along the transverse colon. Sigmoid and rectum narrow and tubelike in outline. Proctoscopic examination refused. Culture of the stool was made and showed staphylococci and small bacilli of undetermined classification. Vaccine was prepared and given beginning with one-tenth e. c. as the initial dose, followed every third day with an increased dose of one-tenth e. c. depending on reaction. In addition to vaccine treatment I used the usual medical treatment consisting of high protein diet, tincture of iodine 10 to 15 minims per day by mouth, kaolin one ounce daily. Colon irrigation of aeriflavine in 1:4000 solution. Irrigation of physiological salts solution, hot water, and argyrol are often of value. Instillations of witch hazel and bismuth in olive oil are occasionally of value, but were not used in this case. The usual local treatment consists in the use of one per cent mercurochrome and silver nitrate. Treatment was continued for

one month without improvement. The patient became discouraged and left the hospital.

My object in presenting this paper is based on the apparent fact that sufficient interest is not being manifested in cases of chronic ulcerative colitis, especially in regard to an effort to determine the exciting cause, and a lack of persistence in treatment, and, lastly, to stimulate effort to isolate organisms which may be responsible for a number of cases of so-called idiopathic ulcerative colitis.

MUSTARD. A BETTER WAY OF MAKING A MUSTARD PASTE

SAMUEL A. VISANSKA, M.D.

Atlanta

Mustard is the sifted farina made from the mixed seeds of the black and white mustard plants. It should be of a bright yellow color and be easily compressed into a coherent mass. In the U. S. and Br. Phar. the unground seeds of the white and black mustard are known respectively as *sinapis alba* and *sinapis nigra*.

Commercial mustard varies in pungency according to the proportion of the black mustard it contains. The black is much stronger than the white on account of the presence of a volatile oil, *oleum sinapis volatile*, which is lacking in the white variety. This oil does not exist in the free state, but is developed by the reaction upon each other in the presence of water, of sinigrin (potassium myronate) and myrosin. To produce this, the water should never be hot, as reaction does not take place except at moderate temperatures, or in the presence of vinegar. To this oil are due the rubefacient properties of black mustard.

The cheaper grades of table mustard often consist almost exclusively of the white variety, or may be simply flour or starch colored with turmeric, etc., and given a pungent taste by capsicum. Black mustard is less active when alone than when mixed with a small proportion of the white, as it seems to contain insufficient myrosin to develop its full activity, while in the white there appears to be an overplus.

The majority of physicians agree that a mustard plaster properly made and applied is one of the best counter irritants, especially

in the bronchial affections. We have been taught these many years to mix the flour and mustard and then add the water, stirring until you get the proper consistency. A better way is to first add your mustard to a small amount of lukewarm water, if there is any volatile oil present it will be developed at once and then add the flour gradually and more water as desired. By this simple method you tell immediately whether the "mustard is mustard," and avoid wasting the flour.

41 Forest Avenue.

VACUUM FRONTAL HEADACHES*

C. E. WARE, M.D.

Atlanta

It is necessary that we familiarize ourselves with the detail of the anatomy of the middle meatus of the nose to have a clear understanding of cases of frontal headaches. I will not attempt to go into the anatomy but only mention certain points.

Sluder uses the term "vault" to designate the entire uppermost extent of the middle meatus. The middle meatus communicates with the frontal sinuses primarily from the vault through the frontal pouch and starts from below under the middle turbinate which is pouched upward at a point in the anterior third. There is another smaller pouch about the middle of the vault behind and above the ethmoid bulla, which communicates with the anterior ethmoid outlet or inlet and is termed the ethmoidal pouch of the vault of the middle meatus. The frontal pouch is usually larger and extends higher than the ethmoidal pouch. For these pouches to retain their communication with the middle meatus, it is necessary that the middle turbinates have a raised position from the lateral wall of the nose. Anything which has a tendency to press the turbinate out causes a closure of these pouches. They may be closed by swelling of the membranes although the turbinate is in its normal position. We may have deviated septum with spurs causing a narrowing of the space between the middle

turbinate and the septum and cause a closure when there is swelling of turbinate and membranes.

These cases may have had frequent nasal colds causing hypertrophy of middle turbinates and by pressure causing a closure of opening into frontal sinus. We find some acute conditions with acute coryza where there is a general swelling of the membranes, and as soon as the coryza subsides the swelling subsides also, the sinus opens and the patient's symptoms are relieved. This is probably due to a small inlet into the frontal sinus.

The pain caused by closure of frontal sinus is quite severe in some acute cases, while in chronic cases there is a dull continuous pain. On transillumination the frontal sinuses are clear. There is pain produced by pressure along the orbit above, which is not found in headaches caused from the eyes, ethmoidal and sphenoidal sinuses, renal, gouty, gynecological, neurotic states and so forth, but is found in empyema of frontal sinuses.

Treatment: Anything which diminishes the swelling of the soft tissues, that which causes closure of the inlet to the frontal sinuses, will be beneficial to the patient. In acute coryza, local applications of cocaine and adrenalin, argyrol, ichthyol tampons, sprays containing adrenalin chloride should be used—nasal douches of normal salt solution and other mild alkaline solutions. These patients should have drugs for their pain such as codeine and other coal tar preparations. In chronic cases it may be necessary to do turbinectomy or septum operation in order to get rid of the nasal obstruction.

556 Hurt Building.

CASE OF MALTA FEVER

Henry S. Acken, Jr., Brooklyn (Journal A. M. A., May 29, 1926), as an instance of the Malta fever which he says is endemic in the United States, reports a case in which three known periods of pyrexia (up to 103), characterized by headache, abdominal soreness, weakness, chills and sweats and no joint pains, occurred. The physical findings were negative. The spleen was never palpable. There was a lymphocytosis, with the blood picture gradually returning to normal.

*Read before the Academy of Ophthalmology and Otolaryngology, Atlanta, February, 1926.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to Welfare of Medical Profession of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

JANUARY, 1927

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Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

AMERICAN COLLEGE OF PHYSICIANS

CLEVELAND MEETING, FEBRUARY 21-25

Announcement is made that The American College of Physicians will hold its Eleventh Annual Clinical Session in Cleveland, Ohio, February 21-25, 1927. Dr. Alfred Stengel of Philadelphia is President of The College and Dr. John Phillips of Cleveland is the Chairman of the Program Committee. The program will be of unusual interest to Internists, (including Neurologists, Pediatricists, Roentgenologists, Pathologists, Dermatologists, Psychiatrists and others engaged in the field of Internal Medicine). The Cleveland hospitals and the Western Reserve University will co-operate with The College in the presentation of the program. These programs constitute each year a post-graduate week on Internal Medicine of outstanding merit.

During the mornings there will be clinics and demonstrations at the various hospitals and in the laboratories of the Western Re-

serve University; during the afternoons, papers on various medical topics will be delivered by local members of the profession and by members of The College from other parts of the United States and Canada; during the evenings there will be formal addresses by distinguished guests, American or foreign, and by the President or other representatives of The College.

The American College of Physicians is a national organization in which Internists may find a common meeting ground for discussion of the special problems that concern them and through which the interests of Internal Medicine may have proper representation. Membership in this organization is limited to those in the field of Internal Medicine. While it is not a limited national society of specialists (mostly prominent medical teachers), it is not co-ordinal with large national or sectional organizations of physicians requiring no special professional qualifications. Its standards are high and many men of distinction in the profession are numbered among its members.

An invitation has been extended by The College to all qualified physicians and laboratory workers to attend the Cleveland Clinical Session. An attendance in excess of fifteen hundred is anticipated.

SEROLOGICAL DIAGNOSIS OF CANCER

Numerous procedures have been used by many investigators to determine the presence of specific antibodies in the blood of cancer patients. Complement fixation tests have received the most attention.

Generally speaking, the results of all have left much to be desired, and Ewing¹ remarks that "although serological studies indicate that there are biological differences between certain tumor tissues, the result obtained in this field are not decisive" and, "it is evident that the subject of complement deviation in tumors is without substantial foundation."

H. J. B. Fry² of the Cancer Hospital Research Institute of London reports a flocculation method which depends upon the direct action of the serum colloids with a saline emulsion of an extract of carcinomatous breast tissue. In the study of one thousand malignant and control cancers, his laboratory

tests were confirmed by clinical, microscopical, or autopsy findings in seven hundred and forty-eight instances, or 74.8 per cent of cases.

The writer's conclusions are that a positive reaction, though not completely specific for malignant disease, is an indication of tissue disintegration; and that when tuberculosis and syphilis can be excluded a strongly positive reaction might be taken to indicate advanced malignancy or widespread metastasis.

(1) Ewing, *Neoplastic Diseases*.

(2) H. J. B. Fry, Further Observation on a flocculation reaction for the serum diagnosis of malignant diseases. *Jan. Path & Bost. Edinburgh*, Vol. XXIX, 4, 353.

\$100,000 OFFERED FOR CONQUEST OF CANCER

Two prizes of \$50,000 each have been offered by William Lawrence Saunders of New York for discoveries of the causation, prevention and cure of cancer. The offer was made on December 15, 1926, and will stand for three years. The donor expects to renew it, if necessary.

Mr. Saunders is Chairman of the Board of Directors of the Ingersoll-Rand Company, Director of the Federal Reserve Bank of New York and President of the United Engineering Company.

The decision upon which the awards will be made is to be reached by the American Society for the Control of Cancer and approved by the American Medical Association and the American College of Surgeons.

It is Mr. Saunders' idea that discoveries are not always made by experts and that "through the lure of a reward this serious problem might be solved through the genius of a lay mind, by chemists or through unorganized medical sources."

The offer of Mr. Saunders to the American Society for the Control of Cancer has not yet been formally acted upon by the Society, and it is impossible to say at this time what rules other than those proposed by Mr. Saunders will control the decisions. Information as to how persons who wish to present their discoveries for consideration should proceed will be announced later.

Mr. Saunders made his offer known through a letter to Dr. C. N. B. Camac of New York under date of December 13, 1926, and read by Dr. Camac at a dinner given in the interests of the American Society for the Control

of Cancer by President Nicholas Murray Butler of Columbia University and Honorable Charles Evans Hughes.

BREAST FEEDING

With the advent, in the last few years of numerous dry milk preparations, it has been but natural for many men in the profession to find an easy way out, when breast feeding occasionally becomes a difficult problem.

To Julius P. Sedgwick, credit is due for reviving interest in breast feeding. While he taught things that were well known to our grandmothers, it seems that the present generation, both among the laity and the medical profession, has to be re-informed as to the possibilities of breast feeding.

A breast fed baby is a healthy baby and its chance both for life and immunity from infection is markedly increased especially, if the baby is fed on the breast alone.

A knowledge of proper expression of milk from the breast and contra-indications for breast feeding should be a part of the armamentarium of every doctor, be he a pediatrician or a man in general practice.

Frank Richardson has, since the death of Sedgwick, continued to develop our interest in breast feeding. This advocacy for the establishment of breast feeding demonstrations, should be of interest to all of us. It is hoped that such demonstrations will be put on very shortly, in Georgia. If a district medical society should interest itself in a matter of such import, we are sure that competent men could be engaged in demonstrating the value of breast feeding. Through these demonstrations the cardinal principles of breast feeding should be demonstrated:

- (a) Complete emptying of the breast at each feeding, either by the baby himself or by the expressing thumb and finger of the mother.
- (a) Complementary feeding, to maintain the normal rate of gain of the baby until the mother's milk becomes adequate without this help.

YAMPOLSKY.

CRAWFORD W. LONG AND THE DISCOVERY OF ETHER ANESTHESIA



Two Views of the Crawford W. Long Statue
in the Capitol at Washington

In the preparation of this article grateful acknowledgment for photographs and information is made to Dr. Frank K. Boland of Atlanta, President of the Crawford W. Long Memorial Association, Inc., and to Dr. John Wesley Long of Greensboro, N. C., author of a valuable monograph, entitled "Crawford W. Long, Discoverer of Ether Anesthesia."

If claims to greatness must rest on service to humanity, few men deserve a higher place in the world's esteem than Crawford W. Long of Georgia, who first used ether as an anesthetic to prevent pain in surgical operations. And if fame is enhanced by the grace of humility, Dr. Long deserves still further tribute, for he asked no special recognition of his work, and sought no personal gain either from his discovery or his teachings.

This unselfish spirit was exemplified in the modest fee charged by him for the classic operation on March 30, 1842, when he painlessly removed a tumor from the neck of James M. Venable who was "under the influence of sulphuric ether inhaled from a towel."

Dr. Long's bill reads as follows:

James Venable

TO DR. C. W. LONG, DR.

1842 *Ether and Exsecting Tumor*

March 30

\$2.00

Not all experimenters, however, were so altruistic. History records, for instance, that on September 30, 1846, an enterprising dentist, Wm. T. G. Morton of Boston, used a mixture which he called "letheon" in the painless extraction of a firmly rooted tooth. When he arranged to have a "letheon" used in surgical operations at the Massachusetts General Hospital, the mixture turned out to be simply sulphuric ether disguised with aromatics and coloring matter. This use of ether was not original with Morton, but was suggested to him by Dr. Horace Wells of Hartford, his instructor and sometime partner, and Dr. Charles T. Jackson, whose home he shared in Boston. These two gentlemen were doubtless unaware of Long's achievement almost five years earlier. Morton, who later received an honorary degree of M.D., patented his mixture, which he continued to call "letheon," and exploited it commercially, giving Dr. Jackson a share of the profits. Morton's activities caused him to be regarded by many as the inventor and first user of ether anesthesia.

Had Dr. Long given prompt and adequate publicity to his discovery, his claim to priority would never have been questioned; but he was averse to the early publication of any achievement in medicine, maintaining that only by long experience can the value of an experiment be confirmed. He contented himself by administering ether whenever he considered it necessary, and by repeatedly advising other physicians to do so. Not until 1849 did he give his discovery formal publication in the medical journals, and many years passed before his modestly-made claims were generally known or recognized. In 1877—a year before his death—he began to receive the honors that had been due him for so long. An article by Dr. J. Marion Sims appeared in the Virginia Medical Monthly declaring Long to be the real discoverer. Then honors aplenty come pouring in—a monument at Jefferson, Ga., where he lived and labored, another in the city of London, a bronze medalion at the University of Pennsylvania, his alma mater, and other distinctions from learned societies throughout the world.

As a crowning honor, a statue of this great

American now stands in the Capitol at Washington where it was placed on March 30th last, as the gift of the State of Georgia. And Georgia in turn received it from the Crawford W. Long Memorial Association, a body organized and chartered solely to bring about this fitting national recognition of one who asked "only to be known as a benefactor of mankind."

—*Alexander McQueen, in
"The Merrell Digest."*

NOTE—The Greek word *anaesthesia* ("not-feeling-ness") was used by the ancients in describing artificial annulment of pain during surgical operations. Its use was revived in 1846 by Oliver Wendell Holmes, who wrote to Dr. Morton suggesting the three forms, "anesthesia," "anesthetic" and "anesthetist."

STUDY OF NURSING

MORE THAN 2,000 SCHOOLS TO BE GRADED

Published by request of
MISS JANE VANDEVREDE,
Exec. Sec.

What the public has the right to expect of the graduate nurse and what good nursing service means from the viewpoint of the patient, the doctor and the nurse are questions expected to receive special emphasis in the nationwide study of nursing which was started January 1 by the Committee on Grading of Nursing Schools. With plans made for a program covering approximately five years, the study provides for the grading of more than 2,000 schools in the United States, announcement was made at the Committee Headquarters, 370 Seventh Ave., New York, N. Y.

Included in the project will be the study of the alleged shortage of nurses with investigations in seven or eight states, the grading of all nursing schools annually for about five years to secure basic information for use in establishing educational standards, and the study of the essential elements of nursing procedure and practice. It is expected that the results will be far reaching for both the nursing profession and the public.

Sponsoring the program are the National League of Nursing Education, the American Nurses' Association, the National Organization of Public Health Nursing, the American Medical Association, the American College of

Surgeons, the American Hospital Association and the American Public Health Association with representatives from the public and the educational field. Dr. William Darrach, dean of the College of Physicians and Surgeons, Columbia University, is chairman of the committee and Dr. May Ayres Burgess is director. Announcement is made also of the appointment of Janet Geister, R. N., newly appointed director of the American Nurses Association at headquarters as nurse consultant for the committee.

The study will start with an investigation of the alleged shortage of nurses based upon the experience of nurses, doctors, hospital administrators and patients. One of the important elements of this survey will be a careful investigation of the economic situation of nurses in all branches of the profession to ascertain the number of working days in a year and the income actually received. Studies will also be made of the experience of doctors in trying to get various types of nursing service for patients and of hospital administrators in securing graduate nurses for ward supervision and private duty. Some of the most interesting elements of the nursing situation are expected to be revealed in the study which will be made of the experiences of patients with individual nurses. The available supply of nurses for public health work will also be scrutinized. These studies which will be started as soon as the machinery can be set up in the States will cover approximately two years, according to the present plan.

Work will also be started in the next two months on gathering material from schools of nursing for the first grading study. Members of the committee state that an effort will be made to reach all the schools in the country. When the first grading is secured on a few basic nursing points, the results obtained will determine the succeeding gradings. The purpose of the study will not be to compile an approved list of schools at once, but to ascertain facts to aid in raising the educational standards. The committee will plan the details of the study as the program advances.

In 1927, according to the preliminary plans made, the comparative ranking of 48 states in the standards of their nursing schools, a series of statistics showing what the 2,000 schools are like, and the first returns of the study of the nursing shortage will be revealed. No details of the standing of individual schools will be made public at this time. Additional facts on schools administration, the results of the second grading, and a full study of the nursing shortage are planned for publication in 1928, while the returns on the third grading showing the progress made in two years are on the tentative schedule to

be made in 1928. In 1930 the results of the fourth grading, a full report on the duties of a nurse after graduation and the routine carried on in nursing schools are expected to be published. Special emphasis will be placed on the effects of present administrative methods and teaching of students, and the probable changes needed will be discussed. Results of the fifth grading and the full findings of the study are planned for publication in 1931. Approximately \$25,000 has already been subscribed for the study. The remainder needed will be raised through the participating organizations and by contributions from private individuals and organizations interested in health work. Dr. Nathan B. Van Etten, New York, has just been appointed a member of the committee on the Grading of Nursing Schools to represent the general practitioners. He is well known for his interests in nursing education. Representing the public and the educational field on the committee are Mrs. Chester C. Bolton, assistant chairman of the advisory council of the Western Reserve University School of Nursing and trustee of Lakeside Hospital, Cleveland, Ohio. Dr. Henry Suzallo, until recently president of the University of Washington, Seattle, Wash. Samuel F. Capen, Chancellor of the University of Buffalo, Buffalo, N. Y.; Edward A. Fitzpatrick, dean of the graduate school, Marquette University, Milwaukee, Wis., and W. W. Charters, professor of education, University of Chicago, Ill.

Other members of the committee are Elizabeth C. Burgess, R. N., assistant professor of nursing education, Teachers College, Columbia University and Laura C. Logan, R. N., dean of the Illinois Training School for Nurses, Chicago, Ill., representing the National League of Nursing Education, Helen Wood, R. N., Director of the Rochester University School of Nursing, Rochester, N. Y., and Susan Francis, R. N., Superintendent of the Children's Hospital of Philadelphia, Pa., representing the American Nurses' Association; Katherine Tucker, R. N., General Director of the Visiting Nurse Service, Philadelphia, and Gertrude Hodgman, R. N., assistant professor, Yale University School of Nursing, representing the National Organization for Public Health Nursing; Dr. Winford H. Smith, director of Johns Hopkins Hospital, Baltimore, Md., representing with Dr. Darrach the American Medical Association; Dr. Malcolm T. McEachern, and Dr. Allen Craig, representing the American College of Surgeons, Chicago; Dr. Joseph B. Howland, superintendent of the Peter Bent Brigham Hospital, Boston, and William H. Walsh, executive secretary of the American Hospital Association representing that organization, and Dr. C. E. A. Winslow, professor of Public

Health, Yale University, and Dr. Lee K. Frankel, vice-president of the Metropolitan Life Insurance Company, representing the American Public Health Association. 105 Forrest Ave., N. E., Atlanta.

VERY LATE ABSCESSSES IN POST-OPERATIVE SCARS

It is a common experience that suppurating wounds, after they have apparently healed, may develop recurrent abscesses within several days or a few weeks. It is unusual for trouble to manifest itself later than this. William A. Fisher, Jr. and Harvey B. Stone, Baltimore (*Journal A. M. A.*, May 29, 1926), presented four cases. One was in origin a heavy infection, with drainage (gangrenous appendicitis with localized abscess). In one case, there was potential infection, and drainage was done; a gallstone in the papilla of Vater was removed by the transduodenal approach. In the third case there was a history of stitch abscess during convalescence from appendectomy. The fourth case was a clean hernia operation without any evidence of postoperative infection so far as the wound was concerned. This incidence of a previous infection of the wound in three out of four cases is of great significance, but perhaps of more arresting interest is the fourth case with no such antecedent history and yet with a definite abscess very late after operation and the discharge of a foreign body. All four of these operations involved the soft parts of the abdominal wall, with no involvement of bone or joint. All the abscesses contained frank, creamy, "laudable pus"—not simply serum or serosanguineous exudate. A foreign body was found in the single case which had no history of a previous infection at the original operation, and also in the appendix abscess case. No fistula into a hollow viscus, and no implication of any abdominal organ was observed in any of the secondary abscesses. Unfortunately, bacteriologic study of these cases is sadly deficient.

Two presented distinct colon odor of the pus, but the hospital records show no report as to cultures. In a third case the abscess was opened in a private office, and no culture were made. The remaining abscess gave a growth on culture that was identified as the unusual organism—at least in surgical experience—*B. alkaligenes*.

District and County Societies

District Editors

- | | |
|---------------------------------|--------------------------------|
| 1. Long, W. V., Savannah. | 7. McCord, M. M., Rome. |
| 2. Watt, C. H., Thomasville. | 8. Carter, D. M., Madison. |
| 3. Greer, Chas. A., Oglethorpe. | 9. Bennett, J. C., Jefferson. |
| 4. Peniston, Joe B., Newnan. | 10. Lee, F., Lansing, Augusta. |
| 5. Fitts, Jno. B., Atlanta. | 11. Mixson, W. D., Waycross. |
| 6. Thompson, O. R., Macon. | 12. Cheek, O. H., Dublin. |

1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.
2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926.
3. Dougherty County, Dr. I. M. Lucas, Albany, Dec. 15, 1926.
4. Chattooga County, Dr. W. B. Hair, Summerville, Dec. 16, 1926.
5. Macon County, Dr. F. M. Mullino, Montezuma, Dec. 30, 1926.

MEETING OF THE THIRTY-SECOND ANNUAL SESSION OF THE ELEVENTH DISTRICT MEDICAL SOCIETY, COURT HOUSE, QUITMAN, GA., TUESDAY, DECEMBER 14, 1926

Meeting called to order at 10:40, Dr. P. C. Quarterman, President.

Invocation, Rev. W. F. Smith, Quitman, Ga. Address of Welcome, Dr. G. D. Dorrough, Quitman, Ga.

Response, Dr. J. M. Smith, Valdosta, Ga. President's Address in the form of an ACROS-TIC, Dr. P. C. Quarterman.

Dr. E. L. Jelks presented a clinical case and reported another.

"The Long Sojourn of a Murphy Button," Discussed by Dr. Kenneth McCullough and Dr. Minchew.

Short Address, Dr. Harvard, President Medical Association of Georgia.

SYMPOSIUM ON SYPHILIS

The Wasserman Reaction in Relation to the Diagnosis of Syphilis, Dr. W. F. Reavis, Waycross, Ga.

Laboratory Study of Specimens for Wasserman Reactions, Dr. Allen H. Bunce, Atlanta, Ga.

Telegram of regret from Dr. Daniel at his inability to attend meeting, read by Dr. Quarterman.

Motion made to send telegram to Dr. Daniel expressing regret at his absence.

Luncheon, Country Club, Guests of the Brooks County Medical Society and Rotary Club.

Post-Operative Manifestation of Syphilis in the Routine Surgical Cases, Dr. T. G. Ritch, Jesup, Ga.

Manifestation of Syphilis in the Treatment of Fracture Cases, Dr. Kenneth McCullough, Waycross, Ga.

Resume of the Treatment of Syphilis, Dr. W. C. Hafford, Waycross, Ga.

Discussion of the above five papers opened to the visitors.

Discussion by Dr. Little, Thomasville, Ga., Dr. Toepel, Dr. Stowe, Jesup, Ga., Dr. Minchew, Dr. McMichael.

Closed by Dr. Reavis, Dr. Bunce, Dr. Ritch, Dr. McCullough and Dr. Hafford.

A visitor from Florida, Dr. Blalock of Madison, was introduced and gave a short talk. Dr. Stowe invited the society to Jesup for the next meeting.

BUSINESS SESSION

Minutes read and approved.

Invitation from Wayne County for next meeting accepted.

Suggested by Dr. McCullough that program committee have something on the operation of Ellis health law, inasmuch as Wayne County was endeavoring to put on the health service in that county.

The 1926 program committee with Dr. Minchew as chairman was asked to function for 1927 also.

ELECTION OF OFFICERS

President, Dr. McCullough.

Vice-President, Dr. McMichael.

Secretary and Treasurer, Dr. Reavis.

Twenty-six doctors attended the meeting.

Dr. Askew and Dr. Roberts were both absent.

Dr. Minchew explained that Dr. Roberts wired that he would be unable to attend.

J. F. MIXSON, Secretary.

FULTON COUNTY MEDICAL SOCIETY

Purchased April 22, 1922, the Academy of Medicine which has come to mean the gathering place for scientific discussion, as well as the meeting place for the profession, when routine and drudgery can be momentarily cast aside, and each one enjoy the consciousness of a warm hand clasp and greetings of welcome from those we call "our friends." From days of antagonism and petty strivings for individual recognition, and as the "Spirit of our Fathers" has softened and shaped us, we have come to live that truest of all axioms—"In Unity there is Strength."

Records show that our library has grown from almost nothing (to be really exact, eleven books and nine journals) to include about 2,000 volumes and a subscription list numbering twenty-five of our more important journals, with many of the different state journals turned over to us from the office of the Medical Association of Georgia. In the library and reading-rooms we have the services of a Secretary-Librarian who graciously gives her services whenever called upon. Information regarding surgical and medical activities throughout the city as well as the regular section, and call meeting of the society is given upon request, and here true to the home atmosphere prevailing, all visitors are made welcome and courtesies of the library extended.

There cannot be a more inspiring sight than that of our auditorium with a seating capacity of 250, well filled with keen, alert and definitely interested listeners, as the discussion of some topic of importance is clearly and concisely presented by one who has given thought, time, and consideration in the preparation of his thesis. It is our wish to make these bi-monthly meetings very snappy, and to always conform to the rules which designate the hours "eight to ten," but when someone has done some especially fine work and the proverbial pin might be heard to fall with a crash, in a room darkened to inky blackness for a lantern demonstration, the time goes by so quickly that we gasp with astonishment when we realize that ten-thirty has come and almost gone.

In sharp contrast to this dark room with its serious thought, we catch sight of this same building lighted from top to bottom, automobiles parked from Pine and Peachtree Sts. to Linden—we enter and there is light, music, laughter, women, pretty women, beautiful women—our wives and sweethearts. The anxieties of the day are put aside for a little, and we enjoy the hospitality of the Womans' Auxiliary to the Fulton County Medical Society, or it may be just the reverse—the members of the Fulton County Medical Society may be the hosts and the members of the Auxiliary our guests, however that may be, deep inside, kept with our pleasantest memories are the thoughts and associations brought to mind by the sight of the Academy of Medicine Building.

GRADY E. CLAY, M.D.
Secretary-Treasurer.

COUNTY SOCIETIES REPORTING FOR 1927

CRISP COUNTY MEDICAL SOCIETY-100%

Crisp County Medical Society announces the following officers for 1927:

President—J. A. Ward, Cordele.
Vice-President—A. J. Wheelchel, Cordele.
Secretary-Treasurer—J. N. Dorminy, Cordele.
Delegate—T. E. Bradley, Cordele.
Alternate—T. J. McArthur, Cordele.
Board of Censors—J. M. C. McAllister, V. O. Harvard and W. A. Miller.

RANDOLPH COUNTY MEDICAL SOCIETY-100%

Randolph County Medical Society announces the following officers for 1927:

President—Loren Gary, Georgetown.
Vice-President—E. C. McCurdy, Shellman.
Secretary-Treasurer—G. Y. Moore, Cuthbert.
Delegate—F. M. Martin, Shellman.
Alternate—G. Y. Moore, Cuthbert.
Board of Censors—W. W. Crook, F. S. Rogers and F. D. Patterson.

STEWART-WEBSTER COUNTIES MEDICAL SOCIETY

Stewart-Webster Counties Medical Society announces the following officers for 1927:

President—J. H. Foster, Preston.
Vice-President—T. B. Miller, Richland.
Secretary-Treasurer—Milton Walton, Lumpkin.
Delegate—J. M. Kenyon, Richland.
Alternate—C. E. Pickett, Richland.
Board of Censors—J. F. Lunsford, J. M. Kenyon and M. Walton.

CHEROKEE COUNTY MEDICAL SOCIETY

Cherokee County Medical Society announces the following officers for 1927:

President—J. T. Pettit, Canton.
Vice-President—G. N. Coker, Canton.
Secretary-Treasurer—Geo. C. Brook, Canton.
Delegate—Geo. C. Brooke, Canton.
Alternate—G. N. Coker, Canton.
Board of Censors—J. R. Boring, S. R. Harbin and T. J. Vansant.

BARTOW COUNTY MEDICAL SOCIETY

Bartow County Medical Society announces the following officers for 1927:

President—H. B. Bradford, Pine Log.
Vice-President—W. C. Griffin, Cartersville.
Secretary-Treasurer—A. L. Horton, Taylorsville.
Delegate—T. Lowry, Cartersville.
Board of Censors—W. C. Griffin, R. E. Wilson and S. M. Howell.

DOUGHEBTY COUNTY MEDICAL SOCIETY-100%

Dougherty County Medical Society announces the following officers for 1927:

President—N. R. Thomas, Albany.
Vice-President—Hugo Robinson, Albany.
Secretary-Treasurer—I. M. Lucas, Albany.
Delegate—W. L. Davis, Albany.
Alternate—J. P. Tye, Albany.

ORTHOPEDIC CLINIC IN ATHENS DECEMBER 3, 1926

Dr. Michel of Augusta, conducted two orthopedic clinics in Athens on December 3rd. The clinics were attended by a number of physicians from the surrounding territory, special invitations having been sent to all the physicians within a radius of forty miles. In spite of the usual subtractions from such an audience Dr. Michel was talking to between thirty-five and forty men thruout the day. Twenty patients were discussed among whom were cases of Club Foot, Pott's Disease, Congenital Birth Palsy, Sequellae of Poliomyelitis, Arthritis, Tuberculosis of Hip, Shortening of Neck of Femur due to Rickets, Deformity Following Healing of Fracture, and Congenital Fusion of Ends of Fingers of both hands.

Dr. Michel handled the material offered in such a masterly fashion that the interest of his audience was maintained to the last.

The morning clinic was held at St. Mary's Hospital. Dinner was served by the hospital to the physicians attending the clinics. The Athens General Hospital was the location of the afternoon clinic.

This was the second of a series of clinics held in Athens at the request of the Clarke County Medical Society by members of the Staff of the University of Georgia Medical School at Augusta as a part of their extension service. Clinics last year were conducted by Drs. Mulherin, Neagle and Sydenstricker on Pediatrics, Public Health and Internal Medicine.

The society wishes to express its appreciation of the services rendered by all of these able men and to commend this service to our fellow societies over the state.

THOS. BOLLING GAY, M.D.,
Secretary and Treasurer,
Clarke County Medical Society.

The eleventh District Medical Society met at the court house at Quitman, December 14 as the guests of Brooks County Medical Society. The meeting was called to order at 10:30 A. M., Invocation by Rev. W. P. Blevins, Quitman; address of Welcome by Dr. G. D. Dorough, Quitman; Response by Dr. J. M. Smith, Valdosta; President's Address by Dr. P. C. Quarterman, Valdosta; The Long Sojourn of a Murphy Button by Dr. E. L. Jelks, Quitman; Discussion opened by Dr. A. G. Little, Valdosta. The Brooks County Medical Society proved their ability as hosts by serving luncheon at the Country Club. In the afternoon the scientific program consisted of the reading of the following papers: The Wasserman Reaction in Relation to the Diagnosis of Syphilis by Dr. W. F. Reavis, Waycross; Laboratory Study

of Specimens for Wasserman Reactions by Dr. Allen H. Bunce, Atlanta; Post Operative Manifestation of Syphilis in the Routine Surgical by Dr. T. G. Ritch, Jesup; Manifestation of Syphilis in the Treatment of Fracture Cases by Dr. Kenneth McCullough, Waycross; Resume of the Treatment of Syphilis by Dr. W. C. Hafford, Waycross.

Nonspecific Protein Therapy in Dermatology. Emmett R. Hall. Southern Medical Journal, October, 1926, Vol. XIX, No. 10, p. 731.

Nonspecific protein therapy is reported as of distinct value in staphylococcus infections of the skin, viz., furunculosis, folliculitis, chronic eczema, tinea and of possible value in psoriasis and syphilis. Intramuscular injections of milk were employed. Attention is called to the rather severe and unnecessary reactions following boiled milk, which may overwhelm the natural resistance of the body. The advantages of ampuled milk, germ and toxin-free, are pointed out.

RELIEF OF DIAPHRAGMATIC TIC, FOLLOWING ENCEPHALITIS, BY SECRETION OF PHRENIC NERVES

The case reported by Charles Edward Dowman, Atlanta, Ga. (Journal A. M. A., Jan. 8, 1927), presents the following feature of interest: (1) the occurrence of rapid spasmodic contractions of the diaphragm following an illness that seems to have been encephalitis; (2) the absence of thoracic breathing during the attacks; (3) the production of pain in the scapular region by faradic stimulation of the ipsilateral phrenic nerve; (4) the restoration of the thoracic type and to a normal rate following division or blockade of both phrenic nerves, and (5) the apparent absence of unfavorable symptoms following bilateral section of the phrenic nerves.

IRRITATION DUE TO INSECT SECRETION

W. A. Hoffman, New York (Journal A. M. A., Jan. 15, 1927), discusses his experience with an insect which flew beneath his clothing and caused a burning sensation. Its cause proved to be a secretion exuded from two glands situated between the second and third pairs of legs. The insect was identified as *Loxa flavicollis*. Experiments were then made with specimens of this insect for the purpose of demonstrating an apparently new means of irritation by insects.

Woman's Auxiliary Medical Association of Georgia

OFFICERS

President.....Mrs. C. W. Roberts, Atlanta
Vice-President.....Mrs. W. L. Davis, Albany
Secretary-Treasurer, Mrs. Marion T. Benson, Atlanta
Honorary President, Mrs. James N. Brawner, Atlanta

District Managers

1st District.....Mrs. Gordon L. Groover, Savannah	7th District.....Mrs. P. O. Chaudron, Cedartown
2nd District.....Mrs. Gordon Chason, Bainbridge	8th District.....Mrs. Paul Holliday, Athens
3rd District.....Mrs. R. H. Pate, Unadilla	9th District.....Mrs. J. H. Downey, Gainesville
4th District.....Mrs. R. S. O'Neal, LaGrange	10th District.....Mrs. W. W. Battey, Sr., Augusta
5th District.....Mrs. Marion C. Pruitt, Atlanta	11th District.....Mrs. B. H. Minchew, Waycross
6th District.....Mrs. C. H. Richardson, Jr., Macon	12th District.....Mrs. T. C. Thompson, Vidalia

COMMITTEES

COMMITTEE ON PROGRAM AND ENTERTAINMENT

Mrs. H. M. Fullilove, Chairman.....Athens
Mrs. Paul Holliday.....Athens
Mrs. W. H. Cabaniss.....Athens
Mrs. R. M. Goss.....Athens

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Mrs. J. Cox Wall, Chairman.....Eastman
Mrs. Chas. C. Hinton.....Macon
Mrs. B. H. Minchew.....Waycross

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Mrs. O. H. Matthews, Chairman.....Atlanta
Mrs. T. F. Abercrombie.....Atlanta
Mrs. J. W. Daniel.....Savannah

FINANCE COMMITTEE

Mrs. Nichols Peterson, Chairman.....Tifton
Mrs. A. H. Black.....Thomaston
Mrs. A. S. M. Coleman.....Douglas

COMMITTEE ON ORGANIZATION

Mrs. L. F. Lanier, Chairman.....Rocky Ford

WOMAN'S AUXILIARY TO TROUP COUNTY MEDICAL SOCIETY ORGANIZED

At the time of the meeting of the Troup County Medical Society at LaGrange in December, a number of the wives of the physicians met and formed an Auxiliary.

Mrs. R. S. O'Neal, the Fourth District Manager, was chairman and introduced Mrs. C. W. Roberts, State President, who addressed the meeting and the main functions of the Woman's Auxiliary were presented as given by Dr. Morris Fishbein of Chicago. The constitution and by-laws of the State Auxiliary were read.

The following officers were elected:

Mrs. Enoch Callaway, Jr., LaGrange, President.

Mrs. R. W. McCall, LaGrange, Secretary-Treasurer.

Mrs. C. W. Harvey, Hogansville, was made chairman of a committee to draft the constitution and by-laws for adoption at the January meeting of the organization.

Sixteen wives of the physicians were present. After adjournment the ladies enjoyed a delightful banquet with the members of the Troup County Medical Society.

Respectfully submitted,

MRS. W. R. McCALL,
Recording Secretary.

COMMUNICATIONS

To the Editor:

"Word has been received from the Dermatological Research Laboratories that they appreciate the patronage given to the D. L. R. Araphenamines by physicians in this State.

"These products have been advertised in this Journal for some time and it is gratifying to know that the readers have taken cognizance of the support of the advertisers. Also, that they are aware of the quality, safety and therapeutic efficiency of the Dermatological remedies for syphilis, which were the first to be made in this country and supplied to the physicians of America when the World War was in progress.

"Yours very truly,

CO-OPERATIVE MEDICAL ADVERTISING BUREAU,
Chicago.

To the Editor:

It is with pleasure that we are enclosing our contract for an additional year of advertising in the Medical Journal.

We believe we can honestly state that we have received more benefit traceable directly to the advertising in your Journal than any other medium in which we advertise.

We want to thank you for the opportunity of placing our ad with you and assure you of our sincere cooperation.

At anytime we can be of service,

"DON'T CUSS—PHONE US."

PRIOR TIRE COMPANY, Atlanta.

To the Editor:

In the behalf of the citizens of this community and myself, I ask you to kindly assist us in getting a good doctor to locate here. We are at a decided disadvantage to get a physician from Nahunta, Brunswick, Hiccox or Hoboken and especially when we have frequent rains to cause the Satilla river to overflow its banks. In addition to the practice at this place, he would have a great deal of practice at Atkinson, Browntown, Bladen and Lulaton. This section is thickly settled with farmers and we have numbers of turpentine and saw mill camps.

Very respectfully,

Dec. 16, 1926. MRS. W. R. McELDERRY,
Waynesville, Georgia.

To the Editor:

Thank you for your whole hearted spirit of cooperation. It always makes me feel good to know you appreciate our work and have the spirit to assist. It just naturally makes the Georgia Journal stick in our "noggins" as one of a few that can be depended on when we need assistance.

Happy holidays to you.

Yours very truly,

Dec. 18, 1926. E. W. MATTSON, Manager,
Cooperative Medical Advertising
Bureau, Chicago.

To the Editor:

Of the total votes cast on the constitutional amendment providing for the filing of birth and death certificates, about 90 per cent were for ratification, which is the greatest per cent ratification for any amendment has received in the last decade.

There can be but one interpretation of this almost unanimous ratification and that is, the people of Georgia unequivocally demand registration of births and deaths.

Although the State Board of Health is charged with the enforcement of the law in securing registration of births and deaths, you must not lose sight of the fact that you, too, are responsible. In other words the State Board of Health must have the cooperation of every physician in order to secure complete registration, so I trust you will lend a willing hand in this, the people's wish.

Thanking you for your past assistance and courtesies, I am

Yours fraternally,

T. F. ABERCROMBIE,
Secretary and State Registrar.

To the Editor:

In the bosom of Mount Alto and her spurs, 6 miles S. W. of Rome, Ga., in an idyllic natural park has been found what many suppose to be the Cherokee Spring of Youth, sought for in the early days by Ferdinando de Sota, and hid from him by

the Cherokees; a strongly Radio-active mineral spring.

The surpassing virtues of this Spring although enjoyed, remained unknown for years to the owner, Dr. John Lawrence, a retired physician, who purchased the place for its beauty, till he was aroused by his fellow-physicians on account of the benefits received, to have a chemical analysis made of the water, and then an examination for Radio activity. It was found to be chemically identical with Mountain Valley Water of Arkansas, tho greatly superior in Radio activity.

The park which is about 300 acres in extent, is now a place of delight, as is the drive of a little less than a mile from the River Road to the house, crossing and recrossing on bridges the brook which flows from the Spring.

In the center of the immediate park is Glen Alto House, possessing every convenience of the city, and surrounded on both sides of the Spring brook by a number of delightfully situated, furnished cottages, each supplied with running water piped from the Spring.

While the water is distinctly beneficial in all derangements of the physical functions, kidney, bladder, liver and stomach troubles, it is also the *most delightful of table waters*, and bottled airtight increases in its virtues and delightful bouquet by the development of the gases due to Radio-activity.

While up to now, only advertised locally, its virtues have compelled users to make its virtues known and it is winning its many sections, and is destined to become a mecca for all lovers of health and happiness.

The Pura Water Co., 100 Piedmont Ave., S. E. is distributor for Radio Mineral Water in the State of Georgia and will be glad to give full information, including an analysis of the water, showing its mineral content. They will also send a 5-gallon bottle free of charge (except bottle) to any sufferer of Diabetes, Rheumatism, Kidney and Bladder Disease, and kindred ailments if request is made through a physician.

PURA WATER CO.

NEWS ITEMS

Dr. J. M. Smith of Valdosta, former President of the Association, and Dr. Arthur G. Fort of Atlanta are taking a post-graduate course in eye, ear, nose and throat work at Johns Hopkins Hospital at Baltimore. Dr. Smith's administration will be remembered as one of the best in the history of the Association, and notwithstanding the fact that he has held the highest office in the gift of the members he is continually doing everything possible for the advancement of scientific organized medicine in the state. Dr. Fort has recently returned from Miami and announces that after his return from Baltimore he will open offices in Suite 303, Medical Arts Building, Atlanta. The profession

will extend Dr. Fort a hearty welcome as the return of one of its prodigal sons.

Dr. R. T. Warnock announces the opening of offices at 720 Candler Building, Atlanta.

Dr. W. A. Borders, formerly of Calhoun, has removed to Armuchee, Floyd County.

Dr. J. Calvin Weaver, 78 East Ellis Street, Atlanta, returned from Rochester, Minnesota, January 1st where he had been for sometime taking a post-graduate course at the Mayo Clinic.

Dr. B. H. Minchew, Waycross, delivered an address before the Lions club in Waycross, November 30 on "The South in Medicine".

Dr. Shelley Davis will assume duties at the American hospital, Paris, on April 1. He is a graduate of Emory University School of Medicine and a son of Dr. E. C. Davis, president, Davis-Fischer Sanitarium, Atlanta.

Dr. John W. Good, Cedartown, has furnished and equipped a hospital on the corner of Main and Gibson Streets and is now open for the reception of patients and for the use of other physicians.

The physicians of Statesboro, Bulloch county, have leased the hospital formerly operated by the late Dr. F. F. Floyd and will run it for a number of years, while all the doctors of Statesboro have an interest in it, the institution will be under the direct management of Dr. A. Temples.

Dr. B. R. Bussell, formerly of Rochelle, Crisp County, has removed to Waycross.

Dr. Chas. Usher, Savannah, was elected president of the Georgia Medical Society.

Dr. John S. Derr, formerly of Atlanta, announces the opening of offices at 35 East Church Street, Frederick, Maryland, and will continue the practice of radiology, deep X-ray therapy and bedside X-ray examinations.

Dr. Marion T. Benson, Atlanta National Bank Building, Atlanta, was elected president of the Fulton County Medical Society.

Dr. W. J. Little, Macon, was elected president of the Sixth District Medical Society at a meeting held in Macon on December 1; Dr. G. H. Alexander, Forsyth, vice-president; Dr. O. R. Thompson, Macon, re-elected secretary-treasurer. The next semi-annual meeting of the society will be held in Indian Springs the second Wednesday in July.

The Third District Association of Graduate Nurses held an Executive Board meeting in Macon on December 4.

Dr. J. K. McClintic, Monroe, has been in New Orleans taking a post-graduate course in surgery at the Tulane University of Louisiana Graduate School of Medicine.

Doctors E. B. Claxton and H. L. Montford, Dublin, have opened their hospital on the second floor of the Street building in Dublin. They have modern equipment for treatment and care of patients. Dr. Sidney Walker is in charge of the X-ray work.

The Third District Medical Association held its thirty-ninth semi-annual meeting in Dawson November 15. A number of interesting scientific papers were read. Dr. S. P. Wise, Plains, was elected president; Dr. R. H. Pate, Unadilla, vice-president; Dr. Chas. A. Greer, Oglethorpe, Secretary-Treasurer. After completion of the scientific program a banquet was given at the Dawson Inn.

The hospital at Riverside Military Academy, Gainesville, has been completed and is perhaps the finest hospital to be found at any preparatory school in the south.

Doctors W. H. Born and J. R. Bradfield, McRae, and Dr. Chas. J. Maloy, Helena, were thanked by the ladies of the McRae Improvement Club for their unselfish work to immunize the children of McRae, Helena and the county against diphtheria.

Grady County Medical Society held its annual meeting on November 12th at Hotel Grady in Cairo. Dr. J. E. Harden, Whigham, was elected president; Dr. A. B. Reynolds, Cairo, vice-president; Dr. J. V. Rogers, Cairo, re-elected secretary-treasurer.

Dr. Joseph C. Bloodgood, Johns Hopkins University Medical Department, Baltimore, Maryland, delivered a lecture on cancer at the First Baptist Church, Atlanta, Sunday night, November 14th.

Sumter County Medical Society held its annual meeting in Beuna Vista on November 11. Dr. S. P. Wise, Plains, was elected president; Dr. Ford Ware, Americus, secretary-treasurer.

Dr. A. H. Dellinger and C. H. McArthur members of the profession at Rome have recently been taken in as members of the Rome Kiwanis Club. Dr. Dellinger was taken in under the classification as surgeon and Dr. McArthur limiting his practice to diseases of the eye, ear, nose and throat.

The Frances-Berrien Hospital, Rome, has been taken over entirely by Dr. J. T. McCall and the name changed to McCALL HOSPITAL. Considerable improvement is in progress and it is expected that it will be classified as a class "A" hospital in the near future.

Dr. M. M. McCord, councillor of the Seventh District, has already begun his rounds of the district for boosting the membership and attendance of the Medical Association of Georgia for 1927. He addressed the members of Whitfield County Medical Society at Dalton on Thursday evening December the 16th. He expects some honor roll societies in his district in 1927.

The retiring president, A. F. Routledge was host to the Floyd County Medical Society at Hotel Armstrong Friday evening December the 17th. The following officers were elected for the ensuing year:

Dr. J. L. Chandler, President.
 Dr. Cliff Moore, Lindale, Vice-President.
 Dr. J. Harry Mull, Secretary-Treasurer.
 Drs. W. J. Shaw and Wm. P. Harbin, Delegates.
 Dr. A. H. Dellinger, Censor.

The Claxton-Montford Hospital, Dublin, has been opened for the reception of patients. It is owned and under the direct management of Drs. E. B. Claxton, H. L. Montford and Sidney Walker.

The American Society for the Study of Goiter will hold its next meeting at Philadelphia, Pennsylvania, January 31 to February 2. The forenoons will be devoted to clinics at the University of Pennsylvania Hospital; the afternoons to the scientific sessions in the assembly room of the Bellevue Stratford Hotel. All members of state associations are most cordially invited. Officers of the Association are as follows: President, Dr. Emil Goetsch, Brooklyn, New York; Vice-President, Dr. Gordon S. Fahrni, Winnepeg, Canada; Recording Secretary, Dr. J. D. Moschelle, Indianapolis, Indiana; Corresponding Secretary, Dr. Kerwin Kinard, Kansas City, Missouri; Treasurer, Dr. J. R. Yung, Terre Haute, Indiana.

Dr. Joe R. Clemmons was re-elected superintendent of the Macon Hospital, Macon, at a meeting of the commissioners held December 14 and the hospital staff for 1926 was re-appointed.

Dr. K. McCullough, Waycross, was elected president of the Eleventh District Medical Society; Dr. J. R. McMichael, Quitman, vice-president; Dr. W. F. Reavis, Waycross, Secretary, at its semi-annual meeting held in Quitman December 14th. The first semi-annual meeting of the society for 1927 will be held at Jesup in April.

BOOKS RECEIVED

The Practice of Medicine, Second Edition, Reset, by A. A. Stevens, M. D., Professor of Applied therapeutics in the University of Pennsylvania. Contains 1174 pages. Publishers: W. B. Saunders Company, West Washington Square, Philadelphia, Pennsylvania. Price; Cloth, \$7.50 net.

History of the Mayo Clinic, Sketch of the History of the Mayo Clinic and Foundation. Contains 185 pages, illustrated. Publishers: W. B. Saunders Company, West Washington Square, Philadelphia, Pennsylvania. Price: Cloth, \$3.50 net.

The Normal Child and How to Keep it Normal in Mind and Morals suggestions for parents, teachers and physicians; with a consideration of the influence of psychoanalysis by B. Sachs, M. D., New York City. Contains 111 pages. Publishers: Paul B. Hoeber, Inc., 76 Fifth Avenue, New York, New York. Price \$1.50 net.

Practical Surgery of the Joseph Price Hospital by James William Kennedy, M. D., F. A. C. S., surgeon to the Joseph Price Hospital, Philadelphia; Consulting surgeon to the Norristown, Coatesville and Chambersburg Hospitals; Member of the American Association of Obstetricians, Gynecologist and Abdominal Surgeons. Contains 861 pages; illustrated with 129 original half-tone plates, some in colors. Publishers: F. A. Davis Company, Philadelphia.

Principles and Practice of Oral Surgery by S. L. Silverman, D. D. S., F. A. C. D., Clinical Professor of Oral Surgery Atlanta-Southern Dental College; Associate Professor of Oral Surgery Emory University School of Medicine; Oral Surgeon to Grady Hospital, Atlanta, Contains 326 pages with 280 illustrations. Publishers: P. Blakiston's Son & Company, 1012 Walnut Street, Philadelphia. Price, Cloth \$6.00 net.

OBITUARY

Dr. John Patrick Newman, Macon, died at his home on the Columbus road on November 25, 1926. He was born in 1849 and graduated from the Medical College of the State of South Carolina. He was a prominent physician of Bibb county and had an extensive practice throughout Bibb and Houston counties for many years until he retired from active practice. Dr. Newman was a member of the Methodist Church. He is survived by two sons; Mr. J. J. Newman and W. P. Newman, Orlando, Florida; three daughters, Mrs. J. W. L. Brown, Cartersville; Mrs. J. C. Sasser, Bainbridge, and Miss Jessie Newman, Asheville, North Carolina. Funeral services were conducted by Rev. J. A. Rountree from Burghard's Chapel and interment was in Riverside cemetery.

Dr. Charles Harry Harvey, Fairburn, died at the home of his mother, December 13, 1926. He was born in 1884. He was in France during the World War with the medical corps of the United States army and after the close of the war spent a great deal of time at Fitzsimmons, Colorado, in a vain effort to regain his health. He is survived by his mother, Mrs. M. P. Harvey, Fairburn; one sister, Miss Marie L. Harvey, Fairburn; two brothers, Mr. H. G. Harvey, Fairburn, and Mr. C. R. Harvey, Atlanta. Funeral services were conducted from the residence by Dr. Chas. L. Bass, assisted by Dr. H. C. Hodges.

MARRIAGES

Dr. William A. Flick and Miss Frances Bailey were married Wednesday afternoon, December 22nd at 3:30 P. M. by Dr. L. O. Bricker of the Peachtree Christian Church. The wedding was a very quiet one with only the immediate family present. Dr. and Mrs. Flick will return to Atlanta January the first and will be at home to their many friends at 32 Howard St.

Dr. W. F. Westmoreland and Mrs. J. N. Renfro, Atlanta, were married on November 29, 1926 in Jacksonville, Florida.

PITUITARY EXTRACTS

Competition may be the life of trade, but it develops some bizarre contrasts. There is competition in the manufacture of pituitary extracts, and the consequence is that the size of the required dose has been, so to speak, "in the air," one brand being several times as active as another. This situation has at least been remedied by the adoption of an official standard (U. S. P. X.), but questions of purity and stability remain to be solved by the manufacturers.

In passing, we may remark that the standard adopted by the U. S. P., and seconded by the Geneva conference of the League of Nations, is the same as that which has long been applied by the house of Parke, Davis & Co., whose product Pituitrin is so well known.

For further particulars in regard to Pituitrin the reader is referred to the advertisement in this issue entitled "Are All Pituitary Extracts Alike?"

PROTEIN THERAPY

Large-spored Ringworm Infection of Beard and Scalp—Treatment with Foreign Protein Injections. Engman. Arch. Dermat. and Syph., 1926, 13, 352.

The author reports the cure of large-spored ringworm infection of the beard in 2 men and of the scalp in 3 children by intravenous injections of suspensions of typhoid bacilli. The doses in the men varied from an initial 50,000,000, gradually increased to 300,000,000; in the children from 7,000,000 up to 250,000,000. Injections were given every four to five days; cures resulted within a month's time in the men, while the children cleared up in two months on the average. The author feels that the injections should be large enough to produce a marked systemic effect as well as a rise in temperature. This method is contraindicated in delicate persons and in those with organic disorders, especially nephritic patients or those with cardiac conditions. The small-spored ringworm infections do not respond to this method of treatment.

Protein Therapy in Pervil Infection. Harry Pike. Medical Journal and Record, October 20, 1926, p. 471.

Nonspecific protein therapy is a valuable means of increasing the resistance of the tissues to infection, localizing infective foci, and preventing the development of general sepsis. In the treatment of pelvic infections, especially gonorrheal involvement of the fallopian tubes, pelvic peritonitis, and febrile abortion, nonspecific protein treatment frequently gives results better than those of surgery. In his early work whole milk, sterilized in an autoclave or by boiling for ten minutes, was used. Later Aolan, a fat-free, sterile milk product, available in ampules and especially prepared for nonspecific therapy was preferred.

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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

Volume XVI

Atlanta, Ga., February, 1927

No. 2

Original Articles

THE DIAGNOSIS AND TREATMENT OF TROPICAL SPRUE

R. S. LEADINGHAM, M.D.
Atlanta

Sprue has long been recognized as an endemic disease among occidentals dwelling in tropical and sub-tropical climates. It is frequently met with in Porto Rico, the Philippines, and in the Far East from India to North China. Isolated cases have been found in our Southern States and in other parts of the world. Harris¹ was the first to describe the disease as indigenous to Georgia.

For the past ten years it has taken a heavy toll of the missionaries residing in Korea. During this period a third of a group of seventy-five living in five small stations in the southwestern part of the country have fallen victims. Many have been returned home incapacitated for further service in the orient, and several have died.

CLINICAL COURSE

The disease is often difficult to recognize in its incipency. Its course is chronic, and characterized by periods of acute exacerbations. The onset may be insidious, or it may follow immediately an attack of acute enterocolitis.

In the first instance there may be no initial acute gastro-intestinal symptoms. The onset is then marked by loss of weight, malaise, anemia, and symptoms of nervous exhaustion. This latter symptom not only frequently initiates, but accompanies other manifestations of the disease throughout its course. As the disease progresses the gums become soft and bleed easily. The tongue is slightly coated and its edges red and painful. The whole

oral and esophageal mucus membrane presents an inflamed surface upon which are numerous minute ulcerations. This condition may be so aggravated that the touch of water is distressing, and each swallow accompanied by pain and spasm of the esophagus.

Examination of the stomach contents after a test meal shows a large quantity of mucus and an absence or reduction in amount of hydrochloric acid. The appetite remains good, and the patient may be ravenously hungry. Nausea and vomiting sometimes occur. The abdomen early becomes distended with gas, and flatulence remains a more or less distressing symptom throughout the illness.

This state may persist, with periods of intermission, for an indefinite length of time. There usually is, however, a consistent progressive consistent loss of strength, and the blood shows from day to day, more evidence of severe secondary anemia. The color index is usually relatively high, with a hemoglobin of 65% to 75%, and a red cell count of under 3,500,000. The number and ratio of the leucocytes are seldom altered. Because of this blood picture, the diagnosis of pernicious anemia is not infrequently made. If the loss of weight is marked, an abdominal malignancy may be suspected.

In progressive cases, an early increase in the size of the stool will be noted. Changes in color and consistency will also occur. The typical sprue stool is best described as a cow pad stool. It floats upon water, and contains large amounts of mucus, fat, and undigested food. It is filled with air bubbles, and is light yellow to slate grey in color. It has a penetrating, pungent, musty odor. It is acid in reaction, and after a few days causes more or less irritation about the anus. Its passage is

¹Read before the Medical Association of Georgia, Albany, Ga., May 13, 1926.

usually unaccompanied by abdominal pain. The number of these stools varies from one to five a day. When they occur more frequently they become lighter in color, and in the most acute exacerbations, "rice water" in character.

With the advance of these intestinal symptoms, there is rapid dehydration and loss of weight. The skin becomes flabby and dry, and rather well defined areas of brown discoloration appear over the dorsal surfaces of the hands and about the face and neck. Flatulence becomes more marked. A barium meal shows hypertonicity of the gastro-intestinal tract, and sometimes reaches the sigmoid as early as six hours after ingestion. Proctoscopic examination often reveals minute ulcerations of the rectal and sigmoid mucosa. The anus is fissured and raw. The urine is scanty and may contain albumen and casts. A patient in this stage of sprue presents a pitiable picture. He is thin to the point of emaciation. His abdomen is distended with gas that he cannot entirely expel. His extremities become edematous, and later secondary purpuric petechial and massive subcutaneous hemorrhages may occur. Although ravenously hungry, the food that he eats is tasteless, and is masticated with difficulty because of the painful condition of his mouth and esophagus. He becomes irritable and irascible, and may show signs of serious mental derangement.

Patients are seldom sent home from the Orient during such an active period of the disease. They usually reach America after the most acute stage has passed. Here, unfortunately, they are frequently allowed to seek their own medical advice upon arrival, and are found going from one part of the country to the other, conscious that they are suffering from an unusual disease, and encouraged to believe that little can be done for them. The psychoneurotic state renders them hard to manage; and they will try the patience of any physician undertaking their care.

PATHOLOGY

The pathology of sprue is primarily found in the mucus membrane of the alimentary tract. Few autopsies have been reported. Those performed have shown a small liver and more or less diffuse erosion of the intes-

tinal mucosa, the surface of which is covered with tenacious mucus. Kohlbrugge and Bahr² found in this mucus a species of yeast fungi resembling the *oidium albicans* which they also demonstrated beneath the surface of the mucus membrane.

At the present time interest in pathogenic yeasts as an etiological factor centers about Ashford's claims of specificity for the *monilia psilosis*. It is his opinion that in sprue there is a food deficiency that prepares a suitable soil for this organism to grow and multiply in the intestinal tract.

He has found the organism in the stools of 87.6% of his sprue cases, and in 1.5% of non-sprue patients. It has also been isolated by other investigators but not in the same per cent of cases. Some believe that it exists as a secondary invader and is not the specific cause of the disease.

We have not been able to produce any lesions in experimental animals by feeding pure cultures of *monilia psilosis* that could not likewise be produced by the *monilia albicans*. In a series of guinea pig experiments we believed ulcerations of the intestinal wall were produced by both. In some instances, perforation of the gut resulted. We were never able to demonstrate yeast cells except on the surface of the ulcer or in other organs of the body except in one instance where the *monilia albicans* was found in the gall bladder of an animal that had been fed on cultures of the organism and died.⁴

Whatever may be our conviction concerning their role in the etiology of sprue, if, when present in large numbers, yeasts of this type are capable of injuring and destroying the gastro-intestinal mucosa, cognizance should be taken of their presence wherever they may be found.

As a part of our routine examination of stomach contents, received from Dr. Mizell's and Wesley Memorial Hospital laboratories, we were for a time interested in observing the number of different specimens that contained yeast, and culturing them on Saboraud's and carbohydrate medias.

Our attention was first directed to three cases where the organisms were very abundant in numerous specimens removed from fasting

stomachs. Two were cases of gastric ulcer and the other a case presenting many of the classical clinical manifestations of sprue. Stools of these patients were also examined, and in the last instance, organisms of the same type as found in the stomach contents were present in large numbers. These organisms were morphologically and culturally the same as one isolated from a patient suffering from sprue in Korea. Cultures were sent to Dr. Ashford for his verification.

We were then led to culture a number of stomach contents whether yeasts were or were not observed in the fresh specimens. In every instance, following a test meal, a growth of yeast occurred on Saboraud's media. Of forty-six specimens examined, twenty-three were morphologically and culturally consistent with the monilia psilosis.

It would be interesting to know if, by their growth and multiplication, such yeasts are capable of producing ulcerations of the gastric mucosa, and, with the stomach as a source of infection, of invading and establishing themselves in the intestinal tract.

TREATMENT

In the treatment of sprue rest is the most important factor. Rest in bed until there is an appreciable gain in weight must be obtained before one can with any assurance of success undertake the management of the patient. The earlier the disease is seen the more rapid will be the response to treatment.

Like other chronic ailments many remedies have been recommended for its cure. Next to rest in bed, rest of the gastric intestinal tract deserves attention. In most instances milk, with a low fat content furnishes the best dietetic means of treatment. Following a cathartic and a day's fasting, it should be given in very small quantities at one or two-hour intervals, the amount not to exceed one liter per day for the first week. The quantity should be increased gradually until four or five quarts are given in twenty-four hours. Where fresh milk is not palatable, boiled milk will often be easily taken. Fruits, especially orange juice and strawberries can also be given with advantage during the whole course of the treatment.

Various drugs and glandular extracts have been used, and Ashford recommends the use of a monilia vaccine.

Usually, as the result of rest in bed and dietetic measures, a marked improvement will be noted in two or three months' time. The milk diet should be continued much longer, however, and other foods gradually added as the amount of milk is decreased.

For those patients who cannot take milk, meat, fruit, and light general diets are advised.

It should always be borne in mind that the primary and essential factor in successful treatment is rest.

CONCLUSIONS

Sprue merits the attention of the physicians of the South where it is to be distinguished from pellagra which it resembles in many respects.

The work of Ashford indicates that the monilia psilosis plays, if not the sole role, at least an important part in its etiology.

I believe that further investigation will verify the fact that this organism is also not an infrequent inhabitant of the stomachs of individuals who present no clinical evidence of the disease. It remains to be proven that its presence in such instances is attended by any deleterious effects.

Sprue is usually amenable to treatment. Untreated it may result in more or less permanent disability or death.

DISCUSSION ON PAPER OF DR. LEADINGHAM

Dr. J. C. Metts, Augusta: Dr. Leadingham has called to our attention a condition in which we are all interested, since from time to time cases of sprue are reported from over the state. With us it has been relatively rare, and in the last four years only two cases have been admitted to the University Hospital which were diagnosed as sprue. One other case of sprue was not admitted to the hospital, but was treated by the staff. All these cases were advanced, none presenting the early signs, and only one was a native of this state. All presented the typical symptoms of sprue as Dr. Leadingham has outlined. Numbers of yeast like organisms were isolated from the stools of these patients, cultures on Saboraud's media giving us colonies which were identical with monilia psilosis.

The role of this organism in sprue is not definitely settled; some workers are inclined to regard it as the sole factor. We find it in the stools in most cases, and the blood serum of these patients will agglutinate it in low

dilution. It can also be obtained from stool cultures of most cases. Clinically improvement can sometimes be obtained by the use of monilia vaccines. Our own experimental work has been a repetition of that of Dr. Leadingham. Guinea pigs fed upon cultures of monilia steadily lost weight, developed a diarrhoea and some died.

I am sure we all thank Dr. Leadingham for his excellent presentation of an interesting subject.

Dr. James E. Paullin, Atlanta: The paper of Dr. Leadingham is extremely interesting, very instructive and deserves our thanks. He has studied sprue not only in this country but in the Orient, where he was a medical missionary for many years. While it has not been conclusively established that monilia psilosis is the cause of sprue, yet the fact that this yeast is recovered from the stools of practically all patients with sprue is significant. It is a well known fact that many yeasts do produce definite lesions in the skin, lungs, etc., so that it is also possible for infection to occur in the tongue and gastro-intestinal tract.

The fact was brought out in this paper that the monilia either psilosis or albicans was recovered from the stomach contents of twenty-three out of forty patients who presented no clinical evidence of sprue. It would be very interesting to know the subsequent developments in these patients, yet one would not think from clinical experience that all of these cases would develop sprue.

The experiment of feeding the monilia to guinea pigs is of interest. However, it is difficult to compare these results with observations in cases of sprue, since the latter condition is a very chronic disease and perhaps requires years for its development. However, in individuals who present themselves for treatment, who have a morning diarrhoea, an examination of the stool for monilia would not be amiss. The presence of this organism would not be accepted as proof of the diagnosis, yet it would make us more suspicious of the existence of this disease. Many patients go along for years with general malaise, slight diarrhoea, a secondary anemia, sore tongue, before the disease is recognized. Early recognition followed by early, appropriate treatment is the only thing offering hope. When the disease progresses to the cachetic stage, where the picture resembles that of a pernicious anemia, the outlook is quite unfavorable and treatment is of little or no avail.

Dr. L. C. Allen, Hoschton: I wish the essayist in closing would give us the chief, out-

standing clinical symptoms that will enable one to differentiate this disease from pellagra.

Dr. R. S. Leadingham, Atlanta (closing).

There is no question but what sprue and pellagra are alike in many respects. The stomatitis and mental irritability especially are very similar in the two diseases. In pellagra, however, the stools are darker in color, more fluid and less copious. Sprue stools also contain a great deal of undigested fat whereas in pellagra the absorption is about normal. The typical skin lesions of pellagra are absent in sprue.

The blood picture in sprue resembles that of an aplastic anemia while in pellagra the color index is lower.

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ACTION OF BISMUTH ON CIRCULATORY SYSTEM

George A. Masson

J. Pharmacol. & Exper. Therap. 30:39 November 1926.

Kymograph and electrocardiographic experiments with dogs and cats show that profound cardiac alterations occur after the intravenous injection of sodium bismuth tartrate. One tenth of the minimum fatal dose in cats produces slight changes in the rate and amplitude of the heart beat and larger doses give more marked impairment, characterized by slowing of the heart rate, lengthening of the auriculo-ventricular conduction and pronounced irregularities in rhythm of which heart block is the commonest. The action is a local toxic one on the heart muscle. Intravenous injections of bismuth cause marked lowering of the blood pressure. The fall in blood pressure and the changes in the heart are influenced to a great extent by the ratio of injection and a second injection gives more pronounced changes than the first.

Titles of papers for the Annual Meeting must be sent in on or before March 15.

REPORT OF A CASE OF CONJUNCTIVITIS TULARENSIS*

ZACH W. JACKSON, M.D.

Atlanta

A report of a case of Conjunctivitis Tularensis at this time would seem opportune, both because of its rareness and the widespread interest in the general subject, Tularemia, aroused by the recent splendid work of Dr. Francis in the United States Public Health Service located in Washington, D. C., who was the guest of honor at the last Georgia State Medical Society Meeting.

Further interest is added in this being the second case observed in Georgia; although the original source of infection was in Tennessee.

A short historical resume to freshen our memories and to also show how the disease seems to be moving toward the eastern and southern sections of this country might not be amiss. I will only cite the outstanding features for the complete detail may be found in the American Encyclopedia of Ophthalmology, Volume V.

Wm. B. Wherry, City Bacteriologist for San Francisco, published an article on "Plague Among Ground Squirrels," (Journal of Infectious Disease, December 8, 1908), in which he presumed that rats infected with the Bubonic Plague Bacillus on ships coming from the Orient had spread the infection by means of the fleas that they harbored, both to man and the ground squirrel.

Up until the classical paper of Past Assistant Surgeon, Geo. W. McCoy of San Francisco, published in (Journal of Hygiene, 1910, pages 589-601) it was supposed that Bubonic and Squirrel Plague were one and the same disease. In his work he showed that though they were closely allied, Squirrel Plague symptoms were not so pronounced and that the pathology of fatal Squirrel Plague was different from fatal Bubonic Plague.

D. T. Vail gives the report of the first case of Conjunctivitis Tularensis in Michigan State Medical Society, September 10, 1914. Two other similar cases have been reported.

These first three cases have all been in the Ohio Valley, in the region around Cincinnati. Thus we see that though the general disease, Tularemia, first appeared in the far west, the infection has spread eastward. Reports from the farmers in the California region show that vast armies of ground squirrels migrated eastward when the plague began to ravage them.

Case report: M. W. L., age 18, Emory University Student, was at home in Tennessee on his Christmas vacation. December 29, 1925, he went rabbit hunting, killing several rabbits, which he cleaned himself. On January 2, 1926, his left eye became inflamed; thinking he possibly had caught cold in the eye, he consulted his local doctor, who gave him some "black medicine," presumably argyrol, to be used in his eye three times daily. His school duties made it necessary for him to return to Atlanta, and he was first seen by us on January 6.

His left eye at that time presented the picture of an acute purulent conjunctivitis. The right eye was normal and has continued so. The usual treatment of Boric Acid irrigations and Argyrol were instituted. A smear and culture were taken, which were negative. As the infection showed no sign of improvement, and the conjunctiva was becoming more hypertrophied, one had the impression that the disease was Acute Trachoma. Applications of 1% Silver Nitrate were made daily. Improvement did not follow, and the conjunctiva became arranged in large, billowy folds, some of which assumed the appearance of small polypi. Near the margin of the lower lid there was a small, superficial, yellowish ulcer of the conjunctiva, which persisted for only two or three days. The cornea and all other structures were and have remained normal.

Then there was detected an enlargement of the left submaxillary lymph node. It was necessary to have in mind Parinaud's Conjunctivitis as the probable disease. Scrapings from the conjunctiva of the lower lid were now made for smear and culture, for it is generally known that bacteria frequently penetrate the epithelial cells, whereas they may not show on the surface. A positive culture

*Read before the Medical Association of Georgia, Albany, Ga., May 13, 1926.

was obtained, which proved to be staphylococci and micrococcus catarrhalis.

At this juncture the patient was questioned more closely about his activities at home, and the information was elicited that he had been rabbit hunting Christmas.

An appropriate amount of blood was withdrawn and the specimen was forwarded to the United States Public Health Department at Washington, D. C. Forty-eight hours later a telegram was received that there was positive agglutination for *Bacillus Tularensis*. A Wassermann test from the same specimen of blood was negative. The written report from Dr. Francis of Washington follows: "Serum of Mr. M. W. L. agglutinates *Bacterium Tularensis* in dilution 1:10, 1:20, 40, 80, 160 and 320, but not in higher dilutions, thus confirming your diagnosis of Tularemia." He says further, "The case is one of the most interesting of which I have heard, especially in regard to the absence of constitutional manifestations and glands; we now have fourteen eye cases, of which none has shown that absence." At the bottom of the letter in the largest type is this warning, "*Better keep your hands behind your back unless you want to go to the hospital.*" Signed, Edward Francis.

At the onset of infection the patient complained of only a slight malaise. There was no chill, in fact patient was not ill enough to have his temperature taken or seek medical advice except for his local infection. While he has been under our care he has felt as well as usual; there has been no elevation of temperature whenever it was taken, and he has continued with his usual school activities, but no studying. A blood count was within normal limits, and no malarial parasites were found.

The last treatment that was given him was a 1% solution of Mercurochrome to be instilled in his eye several times daily, and whether by coincidence or not, the conjunctival infection is gradually subsiding. The submaxillary gland gradually went to the point of suppuration and was opened; a thick greenish yellow, sterile pus was evacuated; drainage continued for about three weeks and gradually ceased, although the area continued

ing the time of recovery. After the first dose quite brawny for several days longer, but finally gave way before moist heat. Since this time the eye condition has remained perfectly normal and the patient has felt well otherwise.

In the Differential Diagnosis there are several conjunctival diseases that assume almost the identical characteristics as the one under discussion. Parinaud's Conjunctivitis, a mycotic infection, such as *Leptothrix* and *Streptothrix*, or *Blastomycosis*, or even PASCHEFF'S Conjunctivitis Necroticans, for in all of them there are mild constitutional symptoms with glandular enlargement, and only by the agglutination test can the diagnosis of Conjunctivitis Tularensis be made positive. With the history of squirrel or rabbit hunting one's attention is certainly directed to it.

Only four cases of Conjunctivitis Tularensis infection have been reported in the Ophthalmological literature, although Dr. Edward Francis in his letter mentions he has the report of fourteen others. Of the reported cases the left eye was the one involved, and the incubation period of all varied from two to four days. There must be a reason for the left eye being infected, which I believe can be explained in the following manner: That at the time of skinning the animal the fingers of the left hand wipe the left eye, whereas if the right eye had been rubbed it would have been most natural to have done so with the back of the right hand, for this hand held the knife or other instrument used in the cleaning of the animal.

In this case it is interesting to note that there was never any marked constitutional symptoms, whereas in all other reported cases such was the fact as was mentioned above. Also the fact that the preauricular node, the first one that is usually involved in a lid or conjunctival infection, escaped.

From what I am able to gather from my investigation of such cases, the progress of this disease, referring especially to conjunctival infection, is always slow and tedious, the course of the disease being at least two months' duration. In the case reported by Lamb, an autogenous vaccine was used, and he thinks it was of distinct value in shorten-

he noticed a marked improvement in the appearance of the eye; after the second dose the temperature became normal. Due to the lack of constitutional symptoms and apparent improvement of the lids under Mercurochrome, it was not considered necessary in our case. It will be interesting to note the results of a series of cases treated with and without vaccines. While I am unaware of any cases of ulceration of the cornea having been recorded, one can conceive of its very rapid destruction in so violent an infection.

As to treatment: Other than what has been intimated about vaccines, local medical treatment would consist of frequent cleansing with Boric Acid Solution and instillation of some local antiseptic. On account of the penetrating and staining qualities of Mercurochrome, it might have showed some favorable influence on the outcome of the case. Indeed, in severe constitutional symptoms appropriate use by intravenous methods might shorten the attack.

While no especial isolation was suggested in this case, with the lack of accurate knowledge of the communicability of this infection among individuals it would be well to adopt it. Dr. Edward Francis warns in no uncertain terms to keep one's hands behind their backs. This warning is probably due to the fact that where cultures have been sent out from Washington to different laboratories many of the workers became infected, with disastrous results.

We are indebted to Dr. Edgar Shanks for the bacteriological work and to Dr. Dan Elkin for the surgical assistance and the interest manifested by both in this case.

DISCUSSION ON THE PAPER OF DR. JACKSON

Dr. J. F. Mixson, Valdosta: The question of infection with the bacillus tularensis I think will attract more attention in Georgia, because we now have the infection here.

I wish to report two cases I saw last month, both infected from the same rabbit. The first patient I saw on the fourteenth day of the disease, and she gave the following history: On April 2 she had dressed a rabbit that had been caught by a dog on the farm, dressing it for a little boy who was visiting there at the time. In dressing the rabbit she had cut the index finger of the left hand on a

broken bone. This was during the afternoon and by 10:00 or 11:00 P.M. she had a severe headache. The next morning the hand was considerably swollen and the epitrochlear glands were enlarged. She had chills and a high fever, which persisted for several days, when the temperature came down somewhat. About a week later she developed two pustules on the right hand and a sore throat. When I saw her she still had a high temperature and was in bed, with marked enlargement of the left epitrochlear and axillary glands, and the right and left cervical glands were also enlarged. She had an ulcer covering the upper half of the left tonsil. She also had a pustule at the site of the original injury on the index finger. All pustules were filled with a brownish-yellow pus. The temperature was in the neighborhood of 103° F. and the pulse was rapid. She was very weak and looked like a typhoid patient. The next morning I got a specimen of her blood and sent it to the National Hygienic Laboratory at Washington, and got back a report that the serum agglutinated bacillus tularensis in as high dilutions as 1 to 1280. It was thought that the family who ate the rabbit were all right, but I later found that the oldest child, a girl aged 13, who cooked the rabbit, was sick. She gave a history that on the Monday following the dressing of the rabbit she became sick, and had to go to bed. She developed two small pustules on the right hand. She had scabies with some eruption on the hands. The glands in the epitrochlear and axillary regions on the right side became swollen and she was confined to her bed for a week with fever. Her blood was taken on the twenty-first day, and was reported as agglutinating the bacillus tularensis in dilutions as high as 1 to 640. The patient was then well except for the epitrochlear and axillary glands. They were as large as marbles, but had not broken down. She has now practically recovered.

As to treatment I cleaned out the pustules of the first patient, and swabbed the tonsillar ulcer with 2 per cent mercurochrome. The ulcer and pustules all healed up within a few days. The patient is still in bed most of the time. She is very nervous, but her appetite is improving and she is sitting up part of the time. The axillary and epitrochlear glands are still greatly enlarged. None of the glands have broken down and I think she will soon be well.

Dr. Francis says there are two types of the disease, first, that which occurs among laboratory workers with no local symptoms, but a systemic infection resembling typhoid

fever, and second, the type from the infected animals with localized as well as general symptoms. The bacillus tularensis is very virulent in the human being. It is not necessary to have a wound for entrance, as the blood or flesh of the infected rabbit rubbed on the surface of the skin will permit it to pass through. The incubation period varies from less than twenty-four hours to seven days.

I think now that we know the infection does occur among the rabbits in this state these cases will probably be seen and recognized more frequently.

Dr. Edgar D. Shanks, Atlanta: It was my privilege to see the case which Dr. Jackson reported, and although I had followed the literature on tularemia I thought Dr. Jackson was very probably mistaken in his suspected case of tularemia of the eye. However, at the time this case came along one of the doctors in Atlanta was in the hospital with tularemia, and in order to enlighten myself I investigated the case further. Soon I found that in the ordinary laboratory work it was impossible to do much with the case because the bacterium tularense will not grow on laboratory media, so I sent some blood for Dr. Jackson up to Dr. Francis in Washington for the agglutination test, which was promptly reported positive. In the reports which we had from Washington on this particular case we learned that these bacteria are not sent out from the main laboratory in Washington to any states or private laboratories because so many laboratory workers have become infected with tularemia. It comes to my mind that we are placed at a disadvantage in making a diagnosis in these cases that we may run into from time to time, especially during the hunting season when quail and rabbits are being killed.

Perhaps I might mention a few of the clinical aspects of tularemia. As Dr. Jackson stated, there have been fourteen cases of tularemia of the eye reported to Dr. Francis, but only four appear in the literature from the ophthalmologists. The great majority of cases of tularemia do not involve the eye. It is a systemic infection, a very septic affair, and so often the abrasion is on the hand.

The physician in Atlanta who was in the hospital because of tularemia contracted it down here near Albany. He had a little briar scratch on his hand and killed a rabbit and dressed it. He developed the tularemia within ninety-six hours. That is the exact incubation period, four days. This incubation period should be kept in mind in all cases of infection of rather obscure origin, particu-

larly during the hunting season. The patients have, in addition to the high temperature, an extreme degree of prostration, and a good deal of sweating. The doctor was sick for six weeks. He ran a very septic temperature for three or four weeks, then gradually improved.

The laboratory diagnosis depends a great deal upon the agglutination test, which is nothing but the ordinary Widal test, using the bacterium tularense. There may not be a positive reaction during the first few days, perhaps not until the first two weeks have passed, but then it is very positive in all cases. The blood is collected in the same way as for the Wassermann test, and the serum should be mailed to the Hygienic Laboratory in Washington, D. C. The work is all done without charge, and the report sent by telegraph immediately after the examination.

Dr. James H. Hodges, Hapeville: I wish to report another case, which would tend to show that tularemia is getting all over the State of Georgia. The patient I speak of, a druggist, was not treated by me but I saw him. He killed and skinned a rabbit up near Haralson. He developed a chill forty-eight hours afterward, and was treated by several physicians in Atlanta for the flu, treated heavy. When he did not respond to this treatment the agglutination test was made, and it was found that he had tularemia.

One symptom to remember is the extreme exhaustion. This infection took place about the first of January, and this druggist tells me he is able to work only about six hours a day, and that it is very difficult to do that. As the prevalence of this disease is on the increase it is up to us to keep our eyes open, and try to alleviate the suffering.

Dr. Zach W. Jackson, Atlanta (closing): Since this case has been under observation Dr. Vail, Jr., the son of the doctor who reported the first case, has reported another. My case was in the right eye, differing from the others, but it was a typical case. As has been mentioned, all the cases reported presented severe constitutional symptoms. I think one thing that prevented that development in this patient of ours was that we "treated him heavy," as Dr. Hodges said. Dr. Vail says the bacterium is like the Pascheff bacillus necroticans. I take exception to that, and think it cannot be accepted until its presence is further proved.

March 15 is the last day for submitting titles of papers to be read before the annual meeting of the Association.

SOME PERSONAL OBSERVATIONS IN REFERENCE TO DEAFNESS*

DUNBAR ROY, A.B., M.D.

Atlanta

Throughout the pages of medical history one finds many dark spots which are but shadows of our inability to fathom the etiology of many human ailments and still more pronounced, our inability to produce any curative results.

Every branch of medicine and surgery has these stumbling blocks which impede us in reaching the desired results. Many of these spots can be found in otology and one which has confronted us for ages is the etiology and cure of deafness.

In discussing the subject you will notice that I have used the general term deafness as distinct from any class of aural involvement. Great strides have been made in the advancement of medicine and surgery, just as great advancements have been made in every realm of the world's scientific history. We are far from reaching a scientific exactness in the realm of medicine, a possibility which may never be fully realized because the human body is no inanimate scientific instrument.

If any criticism is due the practice of medicine today it is engendered by the fact that it has become too scientific and too much built on laboratory results. In this age of microscopes and laboratory technique, the medical profession is too prone to lose sight of the psychology of the personal equation, thereby failing to obtain results either satisfactory to themselves or to their patients.

The writer has been prompted to present a discussion of the title of this paper because he realizes that the medical profession is still imbued with those old ideas concerning the treatment of deafness and have not realized that this subject, just as other domains of medicine and surgery, has advanced to a more satisfactory recognition.

The latter statement is justified by the excellent work which has been done by Siebe-

mann, Politzer, Moos, Fraser of Edinburgh, and Shambaugh in this country.

It has now been eighty-five years since Joseph Toynbee published his work on Otology and up to this present day there has never been a treatise on this subject, published in any language which has been so filled with practical and pathologic information as that contained within the pages of this book.

This statement may seem at variance to the one made at the beginning of this article but I mean that Toynbee's work deals with no hypothetical discussions but presents reports of cases actually seen in the varied practice of this erudite old man and whose recognition of otologic pathology seems almost uncanny in the light of our present day knowledge. It is impossible in a paper of moderate length to discuss all the phases of deafness and for this reason I am confining myself more especially to the differential diagnosis and treatment of this otologic defect.

1. PREVALENCE OF DEAFNESS

It has been impossible for the writer to obtain any statistical exactness in reference to this phase of otology.

Deafness is a symptom associated with several distinct pathologic conditions of the ear.

The deafness discussed in this paper will be that existing in patients whose drum membranes are apparently normal or but slightly involved and where there has been no previous abscess of the middle ear with its attendant destructive process of the parts involved.

Just a few words in reference to this latter condition.

Chronic discharging middle ears are always accompanied with a certain degree of deafness, the extent of which is dependent upon the amount of destructive process. If the discharge ceases, the deafness will still continue and frequently the patient's hearing will be better and the ears more comfortable when the discharge is active.

This form of defective hearing is as a rule stationary, the treatment being directed to the discharge rather than to the improvement of hearing. In fact very little can be expected for the betterment of this later symptom, such usually remaining in status quo after the dis-

*Read before the Medical Association of Georgia, Albany, Ga., May 13, 1926.

charge ceases and the pathologic process remains healed.

The ordinary deafness, such as frequently occurs in the old, gradually increasing with age without objective changes, these are the cases which form the basis for this paper.

NOMENCLATURE

Ever since the beginning of the study of otology, that form of gradually progressive deafness accompanied by thickened retracted drum membrane and some stenosis of the eustachian tube has usually been denominated "dry progressive catarrhal deafness."

Until a better descriptive name can be obtained, this term will probably continue to be used, although it by no means signifies the real pathologic process.

In fact it is only within the last few years since we have been using the refined technique for testing hearing that the modern otologist has been able to distinguish different pathologic processes in hearing. Consequently a great many cases of deafness have been treated in the old routine way when its pathology required something entirely different.

DIAGNOSIS OF PROGRESSIVE DEAFNESS

The study of deafness requires the most minute thoroughness. The idea of superficial examination when a case of deafness presents itself is an injustice to the patient as well as to the otologist. Proper examination and tests, meaning, of course, with a thorough inquiry into every phase of the patient's personal and family history, is just as important as it is for any other obscure physical ailment.

The reason why the treatment of deafness has fallen into so much disrepute is the fact that the majority of these patients are superficially examined and frequently told that their eustachian tube is closed, thus necessitating a life-time service as a slave to inflations.

A complete record should be kept of every such patient and periodic examinations as to the improvement in hearing should always be made, as only in this manner can the progress of the case be determined.

The writer would divide *Progressive Deafness* into two classes:

1. That dependent upon and associated with some abnormal condition of the sound con-

ducting apparatus, i. e., the external auditory canal, the drum membrane, and the middle ear.

2. That dependent upon changes in the sound perceiving apparatus, i. e., the internal ear, labyrinth and cochlea, auditory nerve and auditory center in the brain.

In order to give an intelligent prognosis to the patient it is absolutely necessary to differentiate between these two classes and it is only by the most minute examination and testing that such can be obtained.

OBSERVATIONS ON THE PATHOLOGY AND TREATMENT OF THE FIRST CLASS

The symptoms in this class of cases is too well known to require discussion. Only two of these stand out prominently of which the patient complains:

(a) Subjective noises, and, of course, impaired hearing.

These seem insignificant to the one with normal ears but very nerve racking to the individual so afflicted.

Objective findings rather than pathology in these cases have been shown to be as follows:

1. Retraction and thickening of the drum membrane.

This is largely due to repeated subacute inflammation in the middle ear; proliferation of inflammatory products and a lack of equilibrium in the air on both sides of the membrana tympani.

2. Mucous membrane thickening in the middle ear with consequent ankylosis of the ossicles with bands of fibrous tissue. With these symptoms, is usually associated some degree of stenosis of the eustachian tube. However this latter condition is not invariably present.

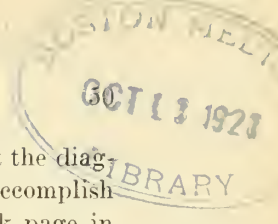
SOME OBSERVATIONS ON THE FIRST DIVISION:

Retraction of the drum membrane is usually due to two causes:

(a) Fibrous contraction and sclerosis of the membrane lining of the middle ear.

(b) Lack of air in the middle ear usually from some stenosis in the eustachian tube producing imbalanced air pressure.

What are the most prominent causes producing these objective findings? Repeated attacks of inflammation of the middle ear in childhood, due to diseased tonsils and aden-



oids, nasal stenosis, and abnormal sinus condition.

In the second place a gradually increasing sclerosis without any previous inflammation insidious in its onset and closely related to a hereditary tendency.

Frequently a stenosis of the eustachian tube exists associated with these conditions indicating that the tubal mucous membrane has probably taken on the same changes as those described in the middle ear.

One can readily realize that these changes will not remain limited to the middle ear but must eventually involve the oval and round windows even to the underlying periosteum in juxtaposition to the internal ear.

Considering these facts one readily understands why defective hearing is not so frequent as formerly, due to the almost universal removal of tonsils and adenoids in early life.

For this reason every child born in a family, where there is any history of defective hearing, should be subjected to an operation for the removal of tonsils and adenoids, and thus remove every possible source of future trouble.

We realize how little can be accomplished in the treatment after progressive deafness has seized a firm hold upon the individual, consequently our efforts should be directed to prophylactic treatment in the early ages, rather than to a curative result in later years.

Contrary to the general belief of the medical profession and to a large extent of the uneducated men practicing otology, stenosis of the eustachian tube is only a contributing factor in these cases. Some of the worst cases of progressive deafness show absolutely no signs of a stenosis.

Such then are some of the writer's observations as to the pathology of this form of progressive deafness and while a more detailed description could be given, time does not permit a further extension of this paper nor would such be of special interest to the general medical man.

This form of progressive deafness is readily recognized, especially when subjected to the present day methods of testing. But like many obscure affections which come under the ob-

servation of the neurologist now that the diagnosis has been made, what can we accomplish by treatment. This then is the dark page in otologic literature.

However, many patients can be benefited by appropriate treatment but not by the old stereotyped methods which have been used for ages.

The old method of nitrate of silver to the nasopharynx, sprays to the nose and inflation with the Politzer bag, may accidentally produce some benefit, but more often leave the patient and otologist discouraged.

After thirty-two years of practice with this class of cases the writer has arrived at some definite conclusion in reference to their management. In the first place a thorough and accurate history of every case is absolutely necessary. This includes especially the question of hereditary syphilis, anemia, circulatory disturbances, endocrine conditions, tuberculosis, enlarged glands, and toxic conditions from every possible source. The great trouble with the busy practitioners of today is the fact that he is too hurried in his examination.

Temporary deafness in the young, following the so-called colds in the head ordinarily disappear after a few treatments, but if prolonged for several weeks may lead to the gradually progressive form.

The writer is firmly of the conviction that proper internal treatment is just as important detrimental than no treatment whatever.

VENTILATION OF THE MIDDLE EAR

This is of prime importance and by many otologists considered the most important thing in successful treatment.

Lack of air equilibrium in the middle ear is largely due to some character of stenosis in the eustachian tube. The amount of this can only be determined by the use of the diagnostic tube. It is useless to inflate a middle ear and depend upon the patient's sensation as to the permeability of the tube. The writer has not used the Politzer bag for twenty years except occasionally when the patient was in bed. If only one ear is involved why should the other be inflated?

The silver catheter is always the best technique to be used, because it can be moulded to every nasopharynx, substances can be in-

jected into the middle ear and thus more readily can the condition of the eustachian tube be recognized. Compressed air of fifteen pounds or less can be used from the tank, thus avoiding any movement to the catheter when inflations are made. The hearing should always be tested after inflation, because no improvement in this symptom means that other causes are more important. If stenosis is found, adrenalin or cocaine injected through the catheter will show you whether it is due to lymphoid thickening or a fibrous condition.

If the latter, then bougies may be used, but only by an otologist with large experience and delicate touch, since more harm can be done than good if these qualities are not possessed.

Years ago the writer used bougies with electrolysis, but after a long experience we have found that the ordinary bougies are capable of producing just as satisfactory results.

A thorough opening of your eustachian tube will not cure progressive deafness. It will be a valuable adjuvant in the treatment but we must recognize that there are other changes which unfortunately may not be eradicated.

MASSAGE OF THE DRUM MEMBRANE

Something can be accomplished with this procedure. Electric massage through the external canal and massage by the patient with his finger pressing the tragus after a few drops of olive oil instillation will do much to aid the resiliency and softening of the drum membrane. Even vibratory massage around the ear aids very materially in exciting the circulation in and around the ear.

DIATHERMY

This form of electric treatment through the high frequency current is being well recognized for its therapeutic effect in certain internal conditions of the human body. Applied by having the patient use his index fingers as electric carriers in the external canals, decided results can sometimes be obtained.

ROENTGEN OR X-RAY

Only within the last few years has the X-Ray been utilized as a probable possibility of benefiting these cases.

The theory of its use is certainly most fascinating to the thoughtful student but whether or not the explanation given by those

working along this line is correct, it certainly opens up a wonderful field for investigation.

It is impossible here to give even a resume of these explanations or technique, sufficient is it to say that the writer has been using and watching this form of adjuvant treatment for the last two years and in some cases the results have been excellent.

It is now a recognized fact, largely due to the experimental biochemical researches of men like Loeb of the University of Chicago, and Crile of Cleveland, that the cells of the human body have been found to be dependent upon a chemical and electrical activity for their life. A living cell is an electrical battery with both negative and positive polarities. If such be the case, then a cell which has lost either one of these functions, has become more or less devitalized.

The X-Ray waves, if used in small dosage will produce an electrical equilibrium in these cells, thus rejuvenating the inactive. If used in very large doses the cells will be destroyed, a result desired when deep X-Ray therapy is used in malignant growths.

The rays are passed through both ears, through the open mouth, and occipital region in minute doses so as to center upon the pituitary body at the base of the brain.

Dr. Stokes of New York, believes that it is this stimulation of the pituitary endocrine which brings about certain metabolic changes in the inactive cells connected with the auditory apparatus.

Whether this is true or not, it is certainly a fact that benefit is sometimes obtained in the betterment of hearing after the use of the mild X-Ray.

All of these procedures are adjuvants and when we realize that the large majority of these cases are usually sent away from the otologist with but few words of encouragement, it behooves us to use any line of treatment, even though empirical, which offers some possibility of relief.

INTERNAL MEDICATION

As was stated previously this form of treatment must not be overlooked. Every source of systemic infection should receive the proper care. Tonsils, teeth, sinuses, intestinal toxæmia, all exert some influence on this class of case.

None of these, however, play as important a role in this class of case as they do in the second great division.

Small doses of the iodid of sodium, mercury, various forms of the endocrine extracts, these and many others are frequently of decided value.

SECOND DIVISION

Deafness due to some morbid condition of the Sound Perceiving Apparatus—During the last few years this form of deafness has been more clearly recognized because of the refinement in our present day tests. There is not always a sharp line of demarcation because those cases of so-called middle ear deafness very easily merge into those of the internal ear. Otosclerosis is the term most frequently used as designating this form of deafness.

The morbid pathology is supposed to represent a spongification of the labyrinth capsule and the surrounding bone.

While the condition is frequently idiopathic, microscopic pathology will show it frequently as an extension from the middle ear.

Dr. Fraser of Edinburgh, has shown this to be the case in the microphotographic sections made of this region and published in his article appearing in the *Annals of Oto-Laryngology*.

This is the form of deafness almost universally found in the old which represents nothing more than senile changes.

The diagnosis of this form of deafness is as follows:

The tuning fork of middle register shows that air conduction is much better than by bone conduction—a symptom just the reverse in the deafness of the middle ear class. In fact bone conduction may be entirely absent.

2. High sibilant sounds like the number sixty-six and high notes of the violin are not heard near so distinctly as the lower tones, as the number forty-four. At this point let me say that the human voice is by far the most important test for hearing.

3. The patient hears better when everything is quiet than for instance in a noisy street car—the reverse of the middle ear deafness.

4. The deafness is very slow in progress common among the aged and frequently not noticed for years.

5. Hearing is not improved by inflation but frequently made worse.

6. As a rule tests indicate that the eustachian tube is well open and the drum rarely shows any objective appearance of involvement.

TREATMENT:

Sprays, applications to the nasopharynx, inflation of the middle ear are practically useless.

More important than anything else is the removal of every source of toxemia, especially the tonsils, teeth, and intestinal.

It is in these cases that the correction of errors in metabolism with the local use of diathermy and mild X-Ray currents, that the best results are sometimes obtained.

The internal administration of small doses of the iodid of sodium, iodine phosphorus, calcium salts, endocrine extracts, intestinal antiseptics, are adjuvants of great value. As was stated at the beginning, my object in presenting this paper was more for the purpose of giving a resume of the present day management of deafness than any ability to present a definite line of treatment which would be curative in its results.

Deaf people lend themselves too frequently to the wiles of the charlatan and quack, and if the otologist does not offer something definite to those unfortunate individuals, they will find themselves the prey of the unscrupulous so-called specialists. We have seen no little reference of late to the benefits afforded deaf people by the use of the radio. While we know personally no specific case which has thus been benefited there is certainly no reason why it should not occur, because different wave lengths of this mysterious force could certainly act in a manner similar to the X-Ray wave of which I have previously spoken. We do not know what may be in store for the future treatment of deafness, but we make no hesitancy in predicting that this will be largely dependent upon some mysterious electric influence after all local pathologic conditions have been removed. In reference to mechanical aids to hearing. These must be tested by each individual patient in order to find the best instrument for his or her case. Certain it is that such should not be used until absolutely necessary, just as I am firmly convinced

that eye-glasses should not be worn for presbyopia until there is a decided need for the same.

DISCUSSION ON PAPER OF DR. ROY

Dr. B. H. Minchew, Waycross: I am delighted to hear Dr. Roy's paper. Some of the admissions made in the paper I have wanted to hear come from a man of his reputation and ability. We have been too prone to accept the deaf patient as simply another case. I am glad Dr. Roy brought out the fact that we have examined our patients too little, and treated them too much. I think there are not more than half of the cases, particularly in adults, that we can relieve in any way.

Another thing has entered into the policy of our efforts, and that is that we have taught our patients to like the treatment we have prescribed. I am speaking of inflation. We have taught our patients to like inflation, because of cocaineization. We use a solution of cocaine and then introduce a silver catheter. Our patients begin to like this form of treatment, and they keep coming back because they like the treatment, rather than the hope of receiving benefit. I think if we will do as Dr. Roy has advised, attempt to find the cause of the deafness, we will go a long way toward the relief we hope for, and which the patient really deserves.

We have often overlooked the importance of focal infection in these cases. The things we have learned in the last few years in this respect have been of as much assistance to the eye, nose and throat men as to the surgeon and internist. A great many of our patients with large tonsils, the chronic follicular type of tonsillitis, undoubtedly have a certain amount of deafness produced in this way. If we look to the sinuses as a cause of deafness in a certain percentage of cases we will be on the right line, and I am convinced that if we cure a great many of the cases of nasal obstruction the hearing will be improved.

In other words, if we will find out the cause of the deafness by thorough examination in our offices, and with the assistance of the laboratory we will be able to benefit a greater number of cases.

I wish to congratulate Dr. Roy on bringing this very practical paper to our attention. If we will study these cases for a definite disorder, locate the trouble and remove it, we will certainly benefit our patients. I am impressed with the thought that the results obtained by one of the leading specialists in our state is due to the routine removal of tonsils and adenoids, rather than from the special apparatus he has devised. We are in-

debted as a body to Dr. Roy for this splendid paper.

Dr. Henry R. Slack, LaGrange: I enjoyed Dr. Roy's paper, as I have enjoyed all of his papers for the past thirty years. He has probably presented as many good papers as any man in the Association.

I speak now from personal experience. As I stated this morning, my deafness started following a malarial infection, for which I was given quinin therapy. Since that time I have never heard perfectly, and that is why I called attention to the fact that there is some danger in giving large doses of quinin. I wish to emphasize the statement that improper treatment is worse than no treatment. I was improperly treated when my deafness first began. I had tinnitus aurum, and the first treatment given me was douches and the Politzer bag. I soon found that the more water I used in my nose the worse I got, and I wish to warn against the use of aqueous solutions in douches in the treatment of ears, except in the cases of ozena in which Dakin's solution can be used very effectively.

Another fact that was brought out was in regard to the role played by heredity. I think that is important. My mother was slightly deaf, and that may be in part the cause of my deafness. I suffer from ankylosis of the ossicles. I hear perfectly when on a train or a street car, or where there is loud sound. When on a train I can hear every sound, even persons talking several seats behind me. The radio is a great help to this form of deafness, as I have learned from experience. When I use a radio set for two or three hours every night I can hear the clock strike when I wake up in the morning. I have a soft toned clock and can always hear it after using the radio, but if I do not use the radio I cannot always do this. I believe there is a great era in prospect for the persons who are deaf from ankylosis. Some time ago Dr. Hill and Dr. Ames of Johns Hopkins University were riding with a friend who was deafened as I am. They noticed that he could hear perfectly well when the train was in motion, but could not hear when it stopped. They are scientific men, and investigated as to why this took place. They are now carrying on experiments at the Physical Laboratory of Johns Hopkins University, and also with the General Electric Company in Schenectady, trying to perfect an instrument to cure this difficulty. They have something which looks like a loud speaker of the radio, which superimposes sounds. Different ears respond to different wave lengths, and the instrument will not be available until the patient's ears can be tested as an oculist tests the eyes. This can be put in the office, or a

store, and by starting the waves one can hear everything perfectly. When it is thoroughly perfected it can be put in auditoriums and theaters, and then the deafened can go and enjoy the plays and music perfectly. I can hear a speaker, but I cannot hear a play where the voices are in different tones, and I think this is the experience of all deaf people. Deafness is more common than we realize, because deaf persons stay away from public gatherings because they cannot hear. I got into the habit of attending our medical meetings before I became deaf, and keep on coming to my society meetings.

Dr. E. Bates Block, Atlanta: I would like to make three points in relation to deafness that have not been mentioned. One is in regard to nerve deafness produced by syphilis. This is more common than is usually supposed, and no amount of local treatment can be effective. It requires constitutional treatment for syphilis. I have seen many cases which were cured by suitable treatment.

Many cases of deafness are brought about by wind blowing in the ears while riding in automobiles, trolley cars or on trains. This chills the tympanic membrane and reduces its vitality predisposing to otitis media.

The third point is in regard to the stopping of the Eustachian tube. Those cases of deafness are not brought about suddenly. There is a gradually increasing deafness with each succeeding cold. Each time the patient takes cold a little more sclerosis occurs, and the tube becomes stopped up a little more each time until they become more and more deaf. This is brought about by the fact that not one out of thousands of individuals knows how to blow his nose. Children are not taught to blow their nose, but are allowed to do it as best they can. No one should blow both sides of the nose at once for that tends to stop up the Eustachian tube. One side should be blown at a time, always gently, and then the other side. Nine hundred and ninety-nine out of a thousand blow both sides of the nose at the same time, and this permits the entrance of material into the Eustachian tube. If this is avoided there will not be so many cases of deafness.

Dr. Calhoun McDougall, Atlanta: Dr. Roy has told us about treatment of the various types of deafness in his excellent paper, but he has not mentioned the treatment indicated in cases of otosclerosis in which the etiology is not definitely known, and the nerve cases that are not due to syphilis and cannot be cured by antisyphilitic measures, as Dr. Block brought out. These patients come in after having been to many otologist for treatment. They come in very melancholy, and develop

psychoneuroses. Life is a burden to them, many commit suicide. I heard one physician say he would rather be blind than deaf when I was an intern at the New York Eye and Ear Infirmary. I thought then that was a peculiar statement, but since my experience in practice I have come to the conclusion that he was right. The blind men in the army hospitals were happy and bright, while the deaf were morose and sullen. The same thing is true of women patients. They can go to their bridge parties and play cards all right, but they cannot hear what the others are saying and often think they are being talked about. We have patients with otosclerosis among physicians, and we advise them to take up dermatology as a specialty, so that they may diagnose and treat patients better without the normal sense of hearing. We must consider what vocation our patients can do best, and what will make them happiest. We have to live this life and should get the best possible out of it. We, as physicians, should keep this in mind. We should not just look at these patients, and inflate them a few times, and then tell them that nothing more can be done, that it is just a chronic deafness, to go on and live with it. Gentlemen, this is not right. Everyone must have some hope, and the drowning man must grasp a straw. Get interested in your deaf patients, advise them as to the proper thing to do. Lip reading is very helpful. Have them go to school and get proper instruction before they get totally deaf. There are various schools throughout the country where they can be taught lip reading. Then they can go and understand lectures or sermons and enjoy them without the sense of hearing. It is very important to think of these points, and to advise patients so that they can get along in life and take care of themselves without difficulty.

Dr. Louis C. Rouglin, Atlanta: Dr. Roy has given us another very interesting paper, and has covered the subject so well that little can be added, except to emphasize some of the things he has said.

Deafness should be classified as either receptive or communicating type. Dr. Roy brought out the progressive feature, which means that it is usually not as bad in the beginning as it becomes later on. It is unfortunate that most patients who come to the doctor do not know that they have defective hearing. Hearing, like vision, is relative. Patients who are partially blind still think they have good sight, and individuals who are deaf think they still hear well before they come for relief. In these cases probably the best we can do is to stop further progress. If we seek for a remedy in that condition it is pro-

phylaxis. If we can get these patients before they realize that they are deaf probably a good deal can be done to prevent deafness, and this is what we should aim for as a medical body. As Dr. Roy said, we have definite tests, we know how much a patient can hear, and how much improvement is necessary to reach the usual standard. This being true, does it not seem reasonable that if we make systematic examinations of all children in school, and educate early those children whose hearing is defective we could probably then speak of a cure much better than if we wait until they are brought in with the complaint of defective hearing. I know that prophylaxis in the way of removing tonsils and adenoids is of great assistance. It would, perhaps, be better to do this before the hearing is defective than afterward.

I wish to make a plea, since we have such definite tests that we pay more attention to the examination of school children and young people than we do now. I think in this way we can go much further in preventing deafness.

CHRONIC ENDOCERVICITIS AND ITS TREATMENT*

CHAS. H. RICHARDSON, JR., M.D.

Macon

In the light of recent experience we are just beginning to understand the far-reaching effects of chronic endocervicitis and we cannot underestimate the role which it plays in sterility and abortion or ignore its tremendous significance as the forerunner of cervical cancer.

It is the most prevalent of all gynecological disorders and Polak states that fully eighty-five per cent of all women, single or married, have infected cervixes. With its accompanying leukorrhea it contributes much to the discomfort of the average woman's life, adds to the backache of the childbearing years, and as she approaches mid-channel exposes her to the most serious cancer hazard probably that she is called upon to face.

With these facts in mind it is readily seen that this condition merits our serious attention and that it is desirable to cure endocervicitis rather than temporize with palliative methods.

It may be defined as a low-grade inflammation of the mucosa of the cervical canal, or may extend into the deeper tissues of the cervix producing a cervicitis. In order to better understand the nature of this condition it is necessary to remember that the cervical endometrium which plays no part in menstruation differs in important particulars from that of the body, and that it behaves differently in response to chronic irritation. The endometrial lining of the body of the uterus is constantly going through the changes that are incident to menstruation and pregnancy and in its normal state is almost immune to infection.

On the other hand the cervical endometrium is placed as a buffer between the vagina with its swarms of various bacteria and the uterine cavity. It also contains large numbers of deep racemose glands which markedly increase its susceptibility to infection. Hence it would seem perfectly natural when we realize the great strain which it is called upon to bear in childbirth and its close proximity to an infected vagina that it should so often become the seat of chronic inflammation and infection.

The commonest causes of erosion are: laceration of the cervix in childbirth and gonorrheal or other bacterial infection of the cervix. The former might better be described as a predisposing cause because if it is a superficial one it may be covered by stratified vaginal epithelium and no harm done. But if on the contrary it is deep there is a tendency for the cervical lips to become everted and the bright red mucosa of the cervical canal becomes exposed to view.

Although the term cervical erosion is commonly used the condition is not a true erosion for no raw surface is produced. With eversion of the lips there is simply an overgrowth of the cylindrical epithelium of the cervical canal which extends its normal limits on to the vaginal portion of the cervix giving to the latter a red and eroded appearance. This bleeds readily, and with added trauma infection soon is added and the resulting fibrosis further increases the eversion, thereby producing a vicious circle. The inflamed cervical mucous membrane becomes red and swollen and a great increase in secretion takes place,

*Read before the Medical Association of Georgia, Albany, Ga., May 13, 1926.

which manifests itself as first a mucus, and then a purulent leukorrhea. The cervical glands on account of their increased activity increase in size and number. As the infection penetrates deeper the interglandular stroma becomes infiltrated with leukocytes, further fibrosis occurs, some of the outlets of the glands are obstructed and retention cysts result.

These cystic structures increase in size and may honeycomb the cervix in every direction and the infravaginal portion is increased to large dimensions. The increase in size and number of the glands may produce localized or diffuse tumor-like hypertrophies which interfere with the circulation and muscular contraction of the cervix and contribute to the menstrual disturbances which so often accompany this condition.

It has become an established fact that cervical secretions are an important factor in promoting or preventing conception, and the role which they play in the production of sterility has been fully demonstrated. While the vaginal secretions are normally acid, their role being to destroy pathogenic bacteria which are introduced by coitus or trauma, those of the cervix are normally alkaline which favors the activity and survival of the spermatozoa. When the cervical canal becomes the seat of disease this alkaline medium is changed to an acid one which is very unfavorable to the motility of the spermatozoa. *Prégnancy* has been frequently observed to occur following the eradication of a chronic endocervicitis.

On the other hand the large number of women who subsequently remain barren after the birth of one child would seem to indicate that cervical lacerations following the first childbirth are a potent factor in their subsequent sterility.

Pelvic cellulitis is another condition which is often attendant upon a chronic endocervicitis with the accompanying lumbosacral backache, due to the pull of the thick, heavy cervix on the inflamed and thickened utero-sacral ligaments. The infection spreads by a lymphangitis to the parametrial tissues and may even involve the adnexa themselves. Attempts to move the cervix in bimanual examinations are very painful in these cases.

The interference with the cervical circulation and muscular contractions which is brought about by the cystic hyperplasia of the glands frequently manifests itself in menstrual disturbances which are seen as menorrhagias and metrorrhagias. This is frequently mistaken for uterine or ovarian dysfunction and incorrect treatment applied.

However the most prominent symptom of all is leukorrhea which may be mucoid or purulent and which most often is cervical in origin. It is common practice to allow this distressing condition to exist for years with no effort made to combat it other than the proverbial and inefficient vaginal douche. In fact the average female has become so accustomed to it that she often does not complain of it as a symptom though a speculum examination will often reveal the erosion, the cystic hyperplasia and the presence of cervical discharge.

The role which the infected cervix plays in focal infection is a mooted one and will only be mentioned in passing.

The extremely varied picture presented by the intermingling of the two types of epithelium upon the surface often closely resembles that of early carcinoma and a histologic examination is often necessary to differentiate the benign from the malignant case. In cancer of the vaginal part of the cervix in the early stage the affected lip is nodular and indurated and the nodules appear glazed, while in chronic cervical inflammation the everted area is soft and covered with thick mucus or mucopus. In cancer the discharge loses its mucoid character and is more apt to be serous or serosanguineous, but a laboratory examination of a section from the suspected lesion is the only sure means of diagnosis and in doubtful cases should always be done. Syphilitic and tubercular ulcerations of the cervix do occur but are extremely rare.

Long continued cervical inflammation may be considered as a prodrome of cervical cancer and it is not a far step from the extreme cell proliferation with an orderly arrangement that occurs in hyperplastic endocervicitis to the disorderly arrangement of embryonal cells found in cancer.

For this reason the prevention of cervical disease assumes an aspect of major import.

The woman in childbirth must have more careful attention and cervical lacerations must be looked for after long and arduous labors and promptly and thoroughly repaired. The same patient must be instructed to report for an office examination from six weeks to three months after labor and any beginning erosions following cervical trauma must be properly treated. As the infection at this time is mostly limited to the glands near the external os this more or less prophylactic measure should prevent most of the severe conditions of the cervix which tend to develop after childbirth.

In the acute endocervicitis of gonorrheal origin prophylaxis is again of great importance and rest, postural drainage and local cleanliness are the fundamentals of treatment.

However it is the chronic type of this condition which merits our most careful attention because it is a source of constant annoyance, endangers health and is probably the commonest cause of cervical cancer.

The palliative treatment of chronic erosions of the cervix as commonly given in office practice, consisting of topical applications of antiseptic tampons and vaginal douches is often more harmful than beneficial in that it does not cure and allows the infection to become more deep seated. Curettage of the cervical mucosa has been tried at length but it has been very conclusively proven that curettage cannot remove all of the gland tissue of the cervical mucosa and whenever the gland tissue remains undisturbed the infection remains unmolested.

And so it has come to be generally agreed that chronic endocervicitis is only curable by eradication or destruction of the deep cervical glands and any form of treatment to be successful must have these requisites. In addition it must be simple and easy of application because endocervicitis is such a common and widespread affection and so potentially dangerous in its effects that any form of treatment to be successful in the aggregate must be placed in the hands of the general practitioner, as the great bulk of these cases never will and never can be seen by the specialist in gynecology. Also it must be an office procedure for it is naturally difficult to persuade

a patient to enter a hospital and take an anesthetic for so simple a procedure.

The writer wishes to call attention to a method of treatment which he believes is not only the best but the only rational one. This is the thorough cauterization of the cervical canal and the eroded lips with the electric cautery. The procedure is as follows: The patient is placed in the dorsal position on an ordinary examining table with well flexed limbs. A bivalve speculum is introduced and the vagina and cervical canal scrubbed out with some alkaline solution. If the cervix is freely movable it is caught with bullet forceps above the diseased area and gently pulled down a little. The cautery blade heated beyond a cherry red is applied to the diseased mucosa and from four to eight linear cuts about one-half centimeter in depth are made from within the canal out to the edges of the everted lips. If both lips are the seat of extensive erosion the whole surface may be seared with the flat surface of the blade. If cystic follicles are seen the cautery knife is plunged straight into them. A cotton tampon is placed within the vagina to absorb any oozing and the patient is instructed to remove it at bed time and to take two alkaline douches a day. She is also told that her discharge will be worse for several weeks and that with the separation of the slough it will be blood tinged. She is instructed to report in four weeks and except in mild cases, the treatment will have to be repeated a second and third time. In about three months all the old discharge has ceased and the cervix appears pink and natural and the mucosa which before was so conspicuous has become reinverted into the canal, and the eroded area is covered with mucosa in appearance like normal epithelium. Most of these patients are relieved of their backache and their general well being is improved. One of the advantages of the method is that it can be done without incapacitating the patient, is painless and there is no interference with subsequent pregnancies or confinement.

Radium has been used to some extent in the treatment of chronic endocervicitis but its application to this condition probably has no advantage over the actual cautery and it is

more likely to be followed by scar tissue and stenosis of the canal and its effect upon the ovary is fraught with some danger during childbearing period.

In a small percentage of cases with extensive tissue hyperplasia which do not respond to the above methods resort must be had to operative measures and some form of partial amputation of the cervix or surgical enucleation by the method of Sturmdorf or some modification of it must be done. However, operative measures of this type had best be reserved where possible for cases that are beyond the age of probable pregnancy. It seems to be the consensus of opinion that too many operations are being done on the cervix in childbearing women.

Approximately thirteen thousand women in the United States died of cancer of the uterus in 1924. With this staggering fact confronting us, the author hopes that the main object of this paper will become clear; that if we are to make any progress in lowering the death rate from this condition materially we must seek out and attack precancerous lesions in the cervix. When we turn to the end results as compiled in all the large clinics everywhere with all forms of treatment we must admit that we are not satisfied, and that we have little to base any great hopes on.

We have admonished women to consult a physician when suspicious symptoms arise. However we all know that there are no symptoms in the earliest stages of cancer of the cervix and if she waits for symptoms she has usually waited too long. We must do more than this; we must teach women who are in the cancer age to have periodic examinations, and we must look not alone for cancer in the early stage of its development, but what is more commonplace and more profitable to recognize the existence of the precancerous lesion. These lesions are well known, they should be easily recognized and by careful and intelligent management they can be eliminated.

DISCUSSION ON PAPER OF DR. RICHARDSON

Dr. C. H. Watt, Thomasville: When one gets up to say something in discussing a paper he is supposed to have thought of something which the essayist has omitted, or to take is-

sue with him concerning something he has said. If this standard was used to disqualify one for discussion I would be disqualified right now, for although I read Dr. Richardson's paper before it was presented I was unable to detect any errors of omission or commission. I can only commend Dr. Richardson, and thank him for bringing the subject to our attention. I think we are too often inclined to believe that we have to present papers of what we consider unusual interest, and overlook the diseases we are all called upon to treat, and in which there is more practical interest than in the unusual case.

All cases of chronic endocervicitis with which we are confronted are exactly parallel to the condition that confronts the nose and throat man in chronic tonsillitis. The topical applications, as brought out by the essayist, are superficial in endocervicitis, and the results are superficial. The throat man may treat a pair of infected tonsils temporarily by topical applications, but he knows he cannot cure the patient except by removal of the tonsils. I wish to emphasize what Dr. Richardson said, that we must destroy these glands, either with the electric cautery, or some form of electrocauterization which completely destroys them, or by some means of complete extension or removal of the affected area. This is the only thing which will effectually cure these cases.

Dr. Cleveland Thompson, Millen: I wish only to emphasize two things the essayist brought out. He said that 85 per cent of all women have chronic endocervicitis. This means that practically all women suffer with endocervicitis at some time during their life. He told us also that it can be cured by the use of the cautery.

I was glad to hear Dr. Richardson put the responsibility for treating this almost universal disease of women on the general practitioner. If there is anyone who is interested in this technic they will do well to look up the recent papers by Davis and Gellhorn.

Dr. A. D. Little, Thomasville: I wish to say that I have enjoyed this very instructive paper. One thing has been overlooked which I think it is well to call to your attention, and that is the Skene's glands. If you cauterize the cervix and leave Skene's glands there you will sooner or later have a reinfection. It is easy to destroy them by taking a smaller cautery and introducing it into these small glands, and then the cure is likely to be complete.

Titles of papers for the annual meeting must be sent in on or before March 15.

SPECIFIC TREATMENT OF LOBAR PNEUMONIA*

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Acute lobar pneumonia¹ caused by the pneumococcus is a disease of frequent occurrence, and is world wide. Its signs, symptoms, pathology, course and duration are as typical in one locality as in another. It² starts out as a local process in the lung, soon producing symptoms of toxemia, but is rarely considered a dangerous disease as long as its organisms do not invade the blood stream. When bacteremia does occur, however, a high incidence of mortality results.

Sera, then, used in treating pneumococcus pneumonia must be antibacterial in nature. At present there is no antitoxic serum for pneumococcus pneumonia.

Antibacterial sera function chiefly to prevent bacteremia, or to check it when it has already developed. This they do by developing in the patient's blood, protective bodies that are highly specific for type. These protective bodies, it has been shown, are rarely present in the blood at the same time with pneumococci. Consequently, in bacteremia the development of protective bodies is followed by the disappearance of pneumococci from the blood.

This paper is a review of the antibacterial sera for pneumococcus pneumonia, with reference to their source and nature and some instances of their use with the results. Only three specific sera and one prophylactic serum for pneumococcus pneumonia have been introduced up to this time. These are: (1) Huntoon's pneumococcus antibody solution; (2) Type I antipneumococcus serum of Cole; (3) Felton's concentrated antipneumococcus serum; (4) Pneumococcus ectoantigens.

1. Pneumococcus antibody solution was first prepared in 1919 by F. M. Huntoon³. It is a clear, colorless, aqueous solution containing the active antibodies obtained from antipneumococcal serum (Types I, II and III combined) suspended in normal saline. It is pre-

pared by recovering the antibodies or immune bodies from pneumococci which have been sensitized by treatment with a potent antipneumococcal serum. It is not a serum⁴, strictly speaking, since it is free from practically all serum proteins, yet contains the antibody or protective value of the serum. It does not preclude any other routine treatment of pneumonia, and may be supplemented by approved symptomatic treatment. It does not cause serum sickness or anaphylaxis, as it is free from proteins. Its usual effect is to lower the temperature, pulse rate and respiration. It may be administered either intravenously or subcutaneously, and has been used extensively by both methods. The initial intravenous dose is 25 to 50 cc.; the subcutaneous dose is from 100 to 200 cc. There are contra-indications to the intravenous use of pneumococcus antibody solution in the very old and feeble, and in those with severe heart and kidney lesions⁵. There are no contra-indications to its use subcutaneously⁴, as much as 1000 cc. having been given in this way within 24 hours without ill effects. If given to apparently normal individuals or in cases which later prove to be other than pneumococcus pneumonia, it has no immediate or remote ill effects on the patient. Huntoon's pneumococcus antibody solution has been subjected to a thorough clinical trial over a period of six years in both hospital and private practice. Much use of this solution has been made by Drs. Cecil and Larsen in Bellevue Hospital, New York⁶. They report eighty-three cases of pneumococcus pneumonia treated subcutaneously with antibody solution during the winter of 1923 and 1924. Among these cases they noticed that large amounts of the solution failed to excite constitutional reactions. There was a slight rise in temperature often, but no chills were seen. Most of the patients showed a definite local reaction at the point of injection, this reaction subsiding completely in twelve to forty-eight hours. In a majority of these cases, the pneumococcus antibody solution failed to have a definite effect on the character and course of the infection. In some cases a truly abortive type of pneumonia resulted. None of the type I cases treated within forty-eight hours after onset continued to show a bacteremia following

*From the Department of Bacteriology, Emory University, School of Medicine.

treatment. Of the total number of cases treated within forty-eight hours after onset of the infection there was a death rate of 24 per cent, compared with a death rate of 39.2 per cent in ninety-nine control cases treated at the same time. This fact suggests that the subcutaneous treatment of pneumococcus pneumonia early in the course of the disease has some therapeutic value. In another group of patients treated by Drs. Cecil and Larsen, in which there were both early and late cases of pneumococcus pneumonia, there was a death rate of 34 per cent among ninety-one cases, compared with a death rate of 35 per cent among 100 control cases. This result is not very encouraging for antibody treatment. Drs. Cecil and Larsen also treated many patients during 1923 with antibody solution given intravenously. Cecil reports 114 cases treated by early intravenous injection. Of these 114 cases there was a death rate of 13.1 per cent compared with 157 control cases with a death rate of 26.7 per cent. Following the intravenous injection of pneumococcus antibody solution, these patients were seen to have hard chills accompanied by a rapid rise in temperature, persisting for a short time, the fall being accompanied by profuse perspiration. From the results of Huntoon's pneumococcus antibody solution used in the treatment of pneumococcus pneumonia in many cases, it is seen that the subcutaneous administration of the solution early in the course of the disease has a favorable effect on the death rate in type I and type IV cases, and to a less extent in type II infections. When given subcutaneously after the first forty-eight hours of the disease no beneficial effect is seen in any type. The intravenous administration is the preferred method, because the antibodies are thus made immediately available in the blood stream. Furthermore, the dosage required for intravenous administration is much smaller than that required for subcutaneous administration, thus lessening the expense. The death rate following intravenous injection of pneumococcus antibody solution is reduced fifty per cent.

2. Type I antipneumococcus serum of Cole² contains agglutinins, precipitins and a large amount of protective substance. This serum

is not free from serum proteins, as is Huntoon's antibody solution, hence reactions occur in about fifty per cent of cases treated with it. It has been shown by Cole that type I antipneumococcus serum possesses a marked sterilizing power. In several cases treated by him, patients with type I pneumococcus septicemia showed sterile blood cultures after treatment with this serum. After intravenous injection of type I serum, the blood of patients contained specific agglutinins. There was a marked drop in the death rate of type I infections after treatment with type I antipneumococcus serum, due to the pneumococci being driven out of the circulating blood by the serum. After injection of type I serum into animals in experimental pneumonia, it was shown by Cecil and Blake² that the blood was quickly cleared of pneumococci. When the animals were treated early, within twenty-four hours after infection, an abortive form of pneumonia resulted. The results in cases of type II pneumonia treated with antipneumococcus serum, are not as favorable as those in type I pneumonia. It is possible, however, to sterilize the blood in cases of pneumococcus type II pneumonia if serum is administered within twenty-four hours after infection, and pushed vigorously. In cases of pneumococcus type III pneumonia, antipneumococcus serum rarely has any effect. The treatment of pneumococcus type IV pneumonia is equally unsuccessful.

From these experiments with antipneumococcus serum of Cole, it is evident that the chief action of the serum is that of sterilizing the blood, and that this results favorably in pneumococcus type I pneumonia, and less favorably in pneumococcus type II pneumonia.

3. Felton's concentrated antipneumococcus serum was first prepared by Dr. L. D. Felton of Harvard Medical School in 1924¹. It is obtained from antipneumococcal serum by a precipitation method. It consists essentially of a solution of serum globulins with the antibodies, thus differing from Huntoon's pneumococcus antibody solution which is free from serum proteins. Felton's² concentrated serum contains protective bodies in a very concentrated form, the concentration varying with different lots, but averaging about five to ten times the concentration of type I and type

II antipneumococcus serum. Acting similarly to Cole's serum, described above, Felton's concentrated antipneumococcus serum quickly sterilizes the blood. Baldwin and Cecil² report a case of pneumococcus type I pneumonia showing on the second day of the disease, ten colonies of pneumococcus type I per cubic centimeter of blood. After administration of 15 cc. of Felton's type I serum a protective balance for pneumococcus type I was established and the blood was found to be sterile. Another case is reported by Baldwin and Cecil² in which a pneumococcus type II bacteremia cleared up immediately after injection of Felton's concentrated antipneumococcus type II serum. In another case, the patient suffering from pneumococcus type II pneumonia, Felton's type I serum was administered and the patient failed to develop type II protective substance, dying on the eighth day. So we see the highly specific quality of protective substance. Felton's concentrated solution is advantageous in that smaller amounts are necessary to establish a balance of protective substance in the blood. In the use of type I antipneumococcus serum or of antibody solution, about 100 cc. is required to produce a positive balance of type I protection in the blood, whereas this is usually produced by 5 to 10 cc. of Felton's type I serum. The intravenous use of Felton's type II serum requires from 15 to 25 cc. The serum of a patient with pneumococcus pneumonia is able to absorb immune bodies, hence serum should be given early in the course of the infection. Fatal results are often due to late treatment, in which case the serum is unable to overcome the effects of prolonged toxemia and septicemia.

4. Pneumococcus ectoantigens originate in a large measure from ectoplasm of bacterial cells, thus differing from most sera which originate in the endoplasm. After being grown on solid culture medium, they are agitated in normal saline, this suspension then cleared of organisms by passage through a supercentrifuge. Thus, autolysates which are known to be toxic are not formed, due to the rapid extraction of the antigens. Pneumococcus ectoantigens represent the extract of types I, II and III pneumococci. This serum contains

only a small amount of bacterial protein. It has been administered subcutaneously, intramuscularly and intravenously. Results indicate that the intramuscular injection is the method of choice, being free from the danger of shock which often follows the intravenous injection. The initial dose is 0.5 cc. to be increased gradually by 0.5 cc. increments. Ferry and Fisher⁷ have carried out many experiments on animals, using pneumococcus ectoantigens. In one series of experiments by them in which mice were given two doses of 0.5 cc. of ectoantigens subcutaneously one week apart, and later injected with live organisms, favorable results were obtained. From these results showing prophylactic value of the pneumococcus ectoantigens, it is evident that pneumococcus ectoantigens might be used for prophylactic purposes against pneumococcus pneumonia in man.

From the results of various experiments with sera in the treatment of pneumococcus pneumonia, reviewed in this paper, it is concluded that:

1. The course of type I and type II pneumococcus pneumonia can be definitely influenced by the proper administration of antipneumococcus serum and its derivatives.
2. The subcutaneous administration of sera has proved successful, but more immediate results are obtained by intravenous injections.
3. Successful specific therapy in pneumococcus pneumonia depends ultimately on the early administration of a potent agent.
4. Specific therapy for type III pneumonia has little to offer at present. Thus far, workers have been unable to sterilize the blood in type III pneumonia, by treatment with any antipneumococcus serum.
5. Type IV pneumonia may be caused by any of the "waste basket group" of pneumococci, consequently an efficient type IV serum is difficult to make. However, there has been a decided lowering of the death rate in treated type IV cases in some instances.
6. Although much progress has been made during the last eight years in the serum treatment of pneumonia, there is yet much to be done before a thoroughly satisfactory specific treatment for lobar pneumonia is achieved.

MY EXPERIENCES ABROAD*

LOUIS HOLTZ, M.D.
Atlanta

I have recently returned from a very delightful trip on the European continent. All my life before going abroad I had been filled with a curiosity as to what Europe has to offer an American physician. During my two years' stay in Europe I visited London, Paris, Vienna, and practically all of the large medical centers, but made Berlin (Germany) my headquarters.

The line of demarcation is marked immediately upon entering the threshold of Europe. One gets an impression of "leisure"; and life there seems to be so quiet and serene. The "hurry-up" life as practiced by the American people is practically unknown in all of Europe. They take their time and do not hurry.

Immediately upon entering Berlin, the capital of Germany, with its broad clean streets, its beautifully shaded walks, its big Tiergarten, which is surrounded by great and beautiful monuments, the traveler receives a very attractive reception. The cleanliness of the city is so noticeable that one looks searchingly for even a scrap of paper. There are perhaps more cultured centers in Germany than in all Europe combined. To mention but a few: Berlin, Munchen, Dresden, Heidelberg, Frankfort, Am-Main, Leipzig, Nurenberg, and many others.

Berlin has been one of Europe's centers of post-graduate medical education for many years. Those physicians who contemplate to study abroad may get excellent courses in internal medicine, surgery, gastro-enterology, pathology, eye, ear, nose and throat, etc.

Here is a fair characteristic of a German Clinic. The professor in charge of it has his staff, whose members devote their time over a stretch of years to teaching and research; he has his laboratories—chemical and biological, for current work, for research, and to the teaching of the student; he had himself been originally trained in pathology, chemis-

try and physiology. Every clinic has its necessary laboratories, chemical and biological, its animal house, photographic and X-ray outfits and library.

Students on medical education consider the German Universities as the best organized, the best equipped, and the most soundly conceived that exist. Despite the serious conditions prevailing now in Germany, as a result of war—neither teaching nor research has stopped.

The student at the University there enjoys such a freedom which is unknown to us here. No record is kept of his time; all is left to his honor—and the final examinations. The German student is more seriously inclined than the American student; despite this—or because of it—he is not afraid to criticize either his school, university, or some of his teachers; loyalty, as we understand it, is not essential there to either school, teacher, club or sport.

There is an American Medical Association which is located at the Charite's Hospital (University of Berlin Hospital). This Association has done much to help the American physician in the selection of courses, and in finding of board and lodging, but for lack of funds it has very recently been disbanded.

The Vienna clinics may be and perhaps are better organized and somewhat cheaper, but I found that individual attention is more often given in the Berlin clinics than those in Vienna.

Vienna, too, has an American Medical Association, and its headquarters are at the Cafe Zur Klinik, Spitalgasse and Lazarette Sts., Austria. The secretary who speaks both English and German will be glad to furnish any information regarding post-graduate work there.

Many American physicians like the courses in Vienna better because English is often used as the medium of instruction. The faculty of the University of Vienna also gives certificates to the various students stating the length of time and the subjects studied at the clinics.

American physicians contemplating going abroad will have no cause to complain concerning living conditions there. Suitable rooms and good food are easily obtained and

*Read before the Fifth District Medical Society, Atlanta, Ga., April 29, 1926.

at prices which are fair.

At the Sorbonne, University of Paris, much work can be done, especially in internal medicine, but French is the only language spoken and only those who understand the language can study there.

I wish to call the attention of those physicians contemplating to do post-graduate work abroad that it is absolutely necessary for them to understand the language of the country in which the physician plans to study. The German language is used both in Germany and Austria, and all courses of real value are given in the native language—German; and many American physicians who go abroad to study without this knowledge simply waste their time and money.

In addition to the very excellent work in post-graduate medicine the physician who enjoys some of the finer things in life has all the opportunities to accomplish this in Europe especially in Germany. There is music, for instance. Germany floats in music. There everybody sings; almost everybody plays an instrument and from the youngest to the oldest everybody understands music; at least that is the impression you carry away with you from the land of Beethoven, Wagner, Bach, Meyerbeer, Brahms, Haydn, etc.

There are more Shakespeare plays given in Germany in a week than in all English speaking countries together in a year. The theatre is looked upon as a school. Fathers and mothers arrange that their older children as well as themselves shall attend the theatre all through the winter, and subscribe for seats as we would subscribe to a lending library. To the German the theatre is not a distraction merely, but an education.

It is a strange contradiction in German life that while they are as a people governed minutely and in detail, forbidden personal freedom along certain lines to which we should find it hard to submit, they are freer morally, free in their literature, in their art, their music, their social life and in their unself-conscious expression of them than other people.

Personally, I found life in Europe very attractive and quite cordial. There is certainly a better understanding of the word friend;

there are more displays of friendship, more sincere friendship, and a deeper meaning of the word man.

DIATHERMY IN UROLOGY*

WITH SPECIAL EMPHASIS ON RENAL COLIC

W. A. UPCHURCH, M.D. and
S. T. BROWN, M.D.
Atlanta

Although the therapeutic value of heat has been known for many years, until comparatively recent times the physician has had to rely in large part upon an effort to drive externally produced heat, derived from hot water bottles, hot baths, hot poultices and other heat radiating agents, thru the skin into the deeper tissues. However, in recent years there has come into being an entirely new means of producing heat in the affected part. This process is termed diathermy, and has been aptly defined by Zimmern as "A form of thermo-therapy which utilizes electrical energy for the production of thermal effects in the depth of the tissue.

It is a well known fact the passage of an electric current thru any conductor is accompanied by the production of heat, the rise in temperature in each case being proportional to the amount of resistance encountered by the current. Diathermy makes use of this principle by passing a modified high frequency current thru the tissue. The diathermy differs from the d'Arsenval high frequency current in that it is characterized by more sustained oscillations, low voltage, and relatively high amperage. The strength of the current is measured by an amperemeter attached to the apparatus, and may be of any intensity between 100 and 3,000 milliamperes. The tolerance of the individual patient determines the maximum amperage used.

If electrodes of equal size are used the maximum generation of heat is at a point mid-way between them. If the electrodes are of unequal size, the maximum intensity of heat will be generated nearer the smaller elec-

*Read before the Fifth District Medical Society, Atlanta, Ga., April 29, 1926.

trode. Thus, by estimating the depth at which the tissue to be treated is situated, we are able, by varying the relative size of the electrodes, to produce a large amount of heat in the desired location. Upon this one fact, in large measure, rests the success or failure of diathermy as a therapeutic agent. When one electrode is extremely small, the generation of heat is very great at the point of contact between the tissue and the small electrode. Heat is generated under these conditions at a rate greater than the rate of heat loss from the surface of that electrode and may be intense enough to cause electro-coagulation.

In Urology, diathermy has a variety of applications, both medical and surgical diathermy being used in the treatment of urological diseases. All types of tumors and new growths of the bladder and genitals may be advantageously treated by the use of a large electrode placed upon some remote part of the body, and an extremely small electrode in contact with the tumor. In this way the use of a sufficiently strong current will bring about an intensity of heat great enough to cause coagulation and destruction of the tissue of the growth. This type of diathermy, which depends upon a destructive cooking or coagulation of the tissue, is known as surgical diathermy. In medical diathermy, on the other hand, the difference in the relative sizes of the electrodes is not so great. Here the intensity of heat is not great enough to cause any destruction of the tissue. Its value depends upon its sedative and stimulative action. Medical diathermy is used in the treatment of subacute and chronic gonorrhea and its complications, and in cases of renal colic.

In the treatment of tumors and new growths of the bladder and urethra it is first necessary to introduce the cystoscope into the bladder. The active electrode is then introduced thru the cystoscope and brought into contact with the tumor. In this application of diathermy the electrode is in the form of an insulated wire with a naked tip. If the tumor is located in the urethra, the cystoscope is first introduced into the bladder and then slowly withdrawn until the tumor is located. Then the active electrode is brought into contact with the tumor, just as in the case of

bladder tumors. In this application of diathermy, the current is applied at an intensity estimated to be great enough to cause the desired coagulation. The effect of the application is constantly observed, and if coagulation does not take place, the current is increased until the desired reaction is obtained. The treatment is repeated at intervals of from three to seven days until the growth is entirely destroyed.

The same application of diathermy is indicated in the treatment of benign tumors of the external genitals.

In chronic cases of gonorrhea which have failed to respond to chemical measures, marked improvement may be brought about by the use of medical diathermy. The efficacy of this treatment depends upon the fact that a temperature of 108 degrees Fahrenheit is fatal to the gonococcus while it has practically no ill effects upon the tissues of the human body. In the treatment of chronic gonorrheal urethritis, endocervicitis and Skenitis, it is necessary to use specially designed urethral electrodes; while, in chronic prostatitis, a specially designed rectal electrode is used. The passive electrode in each case is placed upon some remote part of the body, and a temperature of 110 or more degrees is maintained for a period of twenty to thirty minutes. The temperature is measured by a thermometer which is inserted to the full depth of the electrode. The readings are taken from the exposed portion of the thermometer. The diathermy treatment is repeated every second or third day as the case demands and may be coupled with the regular routine treatment for such cases.

In gonorrheal arthritis electrodes of approximately the same size are placed on opposite sides of the joint to be treated. Only enough current is applied to produce a comfortable warmth in the part. Cases of epididymitis may be treated in exactly the same way, using a small mesh electrode applied to the integument of the scrotum and a large mesh electrode applied to the back.

It has been the observation of other investigators, and our own experience, that the use of diathermy is not indicated in cases of acute gonorrheal urethritis. The harmful effects

produced by overstimulation of the cells of the mucous membrane, resulting in increased inflammation and exudation, overbalance any good effects which may be obtained thru the destruction of the bacteria. This observation is a logical one because the efficient treatment of any infection must aim at the destruction of the bacteria causing that infection, and the conservation of those tissue cells best fitted by nature for combatting the bacteria.

In our practice we have been especially impressed by the favorable results obtained by the use of diathermy in the treatment of renal colic. Any condition which causes an obstruction of the lumen of the ureter with a consequent stoppage of urinary flow, leads to back pressure within the kidney and the characteristic symptoms of renal colic. Among the most important of these causes are renal calculi, ureteral calculi, strictures and kinks of the ureter.

Since the characteristic symptoms of renal colic are so well known, it will not be necessary in this paper to go into the symptomatology further than to state that the condition is accompanied by severe pain in the region of the kidney and ureter. This pain usually radiates downward to the bladder and genitals, and the medial aspect of the thigh.

The usual treatment for the relief of these symptoms consists in the external application of heat derived from hot water bottles, hot baths and hot poultices, together with hypodermic injections of morphine. In our practice we have added the use of diathermy to this routine treatment. While such treatment has not been entirely successful in all cases, it is our firm belief that, in the great majority of cases, this constitutes the surest and most rapid method of obtaining relief for the patient. The internal heat produced by the passage of the diathermy current causes a relaxation of the smooth muscle fibers of the ureter, thereby permitting the passage of the urine by the obstruction, and reduction of the back pressure within the kidney. Heat applied externally does not reach the deeper tissues in sufficient amount to cause this relaxation as completely or as quickly as the internal heat of diathermy. Upon this fact is based the superiority of diathermy.

In order to obtain the localization of heat in the desired region, we use a small mesh electrode, size 4x6 inches, placed over the lumbar region of the affected side, and a large electrode, size 8x10 inches placed against the anterior abdominal wall. The current is slowly and gradually increased until the point of tolerance of the patient is reached, after which it is reduced until only a comfortable warmth is felt in the part. Here it is allowed to remain for a period of thirty minutes or more, as the case demands. The heat produced, and not the number of milliamperes used, is the important point to be considered. We have been successful, in the majority of our cases, in relieving the pain without the use of narcotics. In some cases we have been able to produce sufficient relaxation of the ureter to permit the passage of the calculus into the bladder, by combining diathermy with ureteral dilatations.

As representative of cases in which this treatment has been used, we would cite the following:

Case No. 1. Mr. W. H. M. Age 30. Admitted to hospital Dec. 2, 1925. Kidney colic on left side. Dec. 3, 1925, cystoscopic examination and pyelogram made. Diagnosis—kidney stone on right side and ureteral stone on the left side. Jan. 6 to 11, diathermy 30 min. to 1 hour daily. Jan. 12 septic temperature of 102 degrees. Diathermy omitted until Jan. 20. On this day diathermy was resumed and continued daily until Jan. 29.

Jan. 30. Radical operation done (Ureterolithotomy) because of complete obstruction of the ureter and almost continuous renal colic. Stone had failed to move for a period of five days as shown by X-ray findings. We succeeded by the use of diathermy and manipulations, in moving this stone approximately four inches. In this case the use of diathermy seemed to excite the onset of renal colic instead of relieving the pain. Still under observation and treatment for ureteral dilation to prevent ureteral stricture.

Case No. 2. Mr. F. E. M. Age 29. Aug. 25, 1925. Patient brought to our office suffering with an acute attack of renal colic on the right side. Diathermy applied for 1 hour and 15 minutes. Patient completely relieved

of pain without narcotics. Sent to hospital for further observation and treatment. Medium sized ureteral stone passed next morning without further treatment.

Case No. 3. Mr. M. A. L. Age 32. Sept. 27, 1925. Called to see patient at his home. Diagnosis, acute renal colic on right side. Half grain of morphine given hypodermically. Two hours later patient was brought to our office still suffering the same pain. Diathermy given 1 hour and 15 minutes. Complete relief from pain. Then cystoscoped and a catheter passed to the pelvis of the right kidney after meeting an obstruction just below the kidney. Catheter left in place four hours for drainage and dilation. Sent to hospital for continuation of diathermy and ureteral dilatation, and X-ray examination. Diathermy for two hours morning and night for three weeks. Cystoscoped and ureters catheterized at intervals of five to seven days during this time. X-ray pictures show gradual descent of the stone.

Oct. 23, A.M. Stone passed while diathermy was being administered.

Case No. 4. Mrs. W. J. E. Age 32. Jan. 9, 1926. Cystoscoped and pyelogram made. Diagnosis: stricture of the left ureter at brim of the pelvis, with hydro-nephrosis and hydro-ureter. Following cystoscopic, patient developed acute renal colic and went into a stage of shock before we were notified. Diathermy given for one hour, during which time patient was completely relieved and went to sleep. Diathermy repeated in four hours because of return of mild symptoms. No narcotics used.

Jan. 11. Patient left hospital and has not returned for further treatment.

Case No. 5. Mrs. S. M. C. Age 35. Aug. 22, 1925. Chief complaint: Intermittent attacks of severe pain in both lumbar regions and on both sides of the abdomen. Onset of attacks was sudden and required two or three hypodermics of morphia for relief. Attacks always followed by polyuria. Cystoscopic and pyelogram made. Diagnosis: Stricture of both ureters with bilateral hydronephrosis. Acute renal colic following pyelogram. Diathermy given for twenty minutes. Complete relief without narcotics. This patient had 17 ureteral dilatations alternating between the two

ureters, at intervals of two to four weeks. Following each of the first five dilatations, developed mild renal colic attacks, which were completely relieved by diathermy in 15 or 20 minutes without narcotics. For the past three months she has had no pains or discomfort.

Case No. 6. Mrs. S. E. S. Age 40. Jan. 29, 1925. Chief complaint: pain in both lumbar regions and over the lower half of both ureters and the bladder; frequency and painful urination. Has had three laparotomies in the past seven years for above conditions without relief of symptoms. Cystoscopic and pyelogram. Diagnosis: bilateral ureteral strictures. Following pyelogram severe renal colic developed, which was completely relieved by diathermy used for forty minutes. No narcotics. Following each ureteral dilatation she developed greater or less degree of renal colic. Diathermy 20 to 30 minutes in each case gave complete relief without narcotics. Fourteen dilatations at intervals of two to four weeks and when last seen was completely relieved of all symptoms.

CONCLUSIONS

Diathermy is a very valuable adjunct in urology, especially in the relief of the acute symptoms of renal colic. In the treatment of renal colic it gives surer and quicker relief to the patient.

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NEWER ASPECTS OF PERNICIOUS ANEMIA

Dr. Karl K. Koessler

Bull. Chic. Med. Soc. Vol. XXIX, P. 32, November 27, 1926.

The author produced experimental anemia in white rats by protracted feeding of a diet deficient in vitamin A. The addition of vitamin A. brings about a rapid formation of new blood cells. In clinical cases, the treatment consists chiefly in a diet which is of high caloric value and is especially rich in vitamin A and also contains ample quantities of vitamins Band C. The results obtained with this diet is more than twelve patients is very encouraging. It is a most promising procedure in the treatment of pernicious anemia.

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Profession of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

FEBRUARY, 1927

ALLEN H. BUNCE, M.D., Editor
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H. L. ROWE
Business Manager

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M. M. HEAD, M.D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

MEDICAL HISTORY

The establishment of a chair in the History of Medicine by the Medical School of Johns Hopkins University marks another forward step in the preparation of men for the practice of medicine. It also signifies the increasing desire of the general profession to nurture a cultural background that only a knowledge of the evolution of men's ideas can provide.

Medical periodicals are beginning to sense the growing interest in the subject and many are devoting a portion of their pages to biographical and historical sketches. In many of the larger cities Medical History Clubs have been formed and their studies together have inspired and bound the members in bonds of goodly fellowship.

Advances in the medical arts and sciences have been bought at the price of consecrated persistent human endeavor, and we all will be better fitted for our daily task by refreshing

our minds occasionally with a perusal of the lives of those who gave us the benefits we enjoy.

THE MAYO CLINIC

When one contemplates a daily registration of some two hundred patients at any "Clinic", he is immediately impressed not only with the magnitude of the facilities but also with the vast possibilities for clinical observation and scientific research.

The machine like smoothness with which all of the departments of this Clinic function bespeaks a pervading psychology attributable perhaps more than any other to Dr. Charles H. Mayo, who, like Maurepas, possesses "the art to nip in the bud all factions or cabals, to stifle the grumbling of discontent or to lull the murmurs of offended pride".

Heretofore the numerous specialists of America have been developed in one or two ways, viz., either by serving an apprenticeship to some man already specializing in a particular line or by giving more and more study and attention to some particular subject as opportunity afforded, then taking an intensive course, both having a certain amount of merit, but in the final analysis falling short of ideal.

There are two major features of the Mayo interests, the Mayo Clinic, and the Mayo Foundation. The former cares for all clinical cases, most of whom are from the United States and Canada: the latter, through the University of Minnesota, utilizes the educational facilities furnished by the Mayo Clinic, for training of graduates in either Medicine or Surgery.

As a reward for four years of faithful work, along with other specified requirements, the University of Minnesota bestows the degree of Master of Science in Surgery or Medicine, which is beginning to rival the Fellowship of the Royal College of Surgeons.

Last year there were 1135 applications for Fellowship, out of which only 54 were accepted.

At this Clinic merit stands pre-eminent—there is no coddling. The highest grade man gets the job. As an illustration of this, the lives of some of the leading men, products of this training school, read like a romance.

As such schools as Tulane, Pennsylvania and California are modeling their systems after the Mayo Foundation, and as doubtless others will gradually do likewise, it means that eventually any graduate in medicine, even though ever so poor, will be afforded an opportunity of developing as far as his ambition and mentality will take him.

At present the Fellows are paid eight hundred dollars the first year, nine hundred the second year, while the first assistants in the third year get eighteen hundred.

While this opportunity is given a limited number of young graduates to develop along any desired line, the Mayo Clinic is also doing a great deal towards elevating the standard of Medicine and Surgery in America by throwing open its doors to the less fortunate, the only condition being "an enthusiasm for learning and an unquestionable thirst for information".

Would you be refreshed mentally and physically? Run up to the Mayo's for a little stay.

J. CALVIN WEAVER.

TEN HEALTH COMMANDMENTS

1. EAT WISELY: much milk, green stuffs, fruit and whole grain bread; little meat and sugar; avoid alcohol and stimulants.
2. EXERCISE FREELY: stand and sit erect.
3. USE YOUR LUNGS: breathe fresh air day and night. Stay in the sunlight a part of every fair day.
4. BE CLEAN: wash your hands before you eat; bathe often; clean your teeth morning and night.
5. FEEL WELL: don't get over-tired; rest is your best friend. A 30 minute nap in mid-day is not laziness but good sense.
6. BE REGULAR: don't break your appointments with yourself for meals, sleep, and bowel movements.
7. KEEP YOUR BALANCE: hurry and worry serve no man. Play a little every day.
8. KEEP SAFE: fight shy of the careless sneezer, spitter, the common drinking cup, and the home with open well or open toilet.
9. DON'T BE TOO SMART: when you are sick, go to bed and call a doctor. Few who do this promptly, die of pneumonia or flu.
10. BE THRIFTY: Invest in an examination by a doctor and dentist on your birthday every year; it will pay dividends.

Prepared by Department of Health, Athens and Clark County, Athens, Ga., B. B. Bagby, M.D., Health Commissioner.

STUDIES IN TUBERCULOSIS

A biologic method has been devised by Frederiek Eberson, San Francisco (Journal A. M. A., Jan. 29, 1927), for identifying specific skin-reacting substance of the blood serum of tuberculous patients and animals. A heat-sensitive skin-reacting substance of the nature of a toxin has been identified in the blood serum of tuberculous patients and guinea-pigs. It is not found in normal human or guinea-pig serum. The substance does not behave like tuberculin or its related elements which are heat-resistant, and it exists independently of these. It is present in largest amounts in far advanced tuberculous infections with profound toxemia, and is apparently destroyed by heating at from 60 to 65 C. for from twenty to forty-five minutes. In normal animals this unheated substance gives a positive skin test owing to its interaction with normal antibodies for tubercle products. The method devised for identifying this specific skin-reacting substance depends, in principle, on a living "indicator," the guinea-pig, which measures related or identical elements in the serum to be tested. The procedure was made possible by a previous demonstration that normal animals could be sensitized with fractional tuberculins prepared from nonprotein substrates. Skin reactions obtained according to the technic described in these experiments are referable to an addition or subtraction of one or more of the interacting substances present in tuberculous serum and in the tissues of the experimental animal. The heat-labile substance, probably a toxin, in tuberculous serums can be used as a measure of the circulating antibodies in normal and tuberculous persons. A test of this type may serve as an index of the bodily resistance of tuberculous infection in both groups. Certain theories and hypothesis regarding tuberculin and skin sensitiveness find controllable experimental evidence in the observations described.

**Titles of papers for the Annual
Meeting must be sent
in on or before
March 15**

District and County Societies

District Editors

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Long, W. V., Savannah. 2. Watt, C. H., Thomasville. 3. Greer, Chas. A., Oglethorpe. 4. Peniston, Joe B., Newnan. 5. Pitts, Jno. B., Atlanta. 6. Thompson, O. R., Macon. | <ol style="list-style-type: none"> 7. McCord, M. M., Rome. 8. Carter, D. M., Madison. 9. Bennett, J. C., Jefferson. 10. Lee, F. Lansing, Augusta. 11. Mixson, W. D., Waycross. 12. Cheek, O. H., Dublin. |
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1927 HONOR ROLL

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| <ol style="list-style-type: none"> 1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926. 2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926. 3. Dougherty County, Dr. I. M. Lucas, Albany, Dec. 15, 1926. 4. Chattooga County, Dr. W. B. Hair, Summerville, Dec. 16, 1926. 5. Macon County, Dr. F. M. Mullino, Montezuma, Dec. 30, 1926. | <ol style="list-style-type: none"> 6. Lamar County, Dr. Jno. M. Anderson, Barnesville, January 6, 1927. 7. Pike County, Dr. M. M. Head, Zebulon, January 25, 1927. 8. Rabun County, Dr. J. A. Green, Clayton, January 27, 1927. 9. Murray County, Dr. E. H. Dickie, Chatsworth, January 27, 1927. 10. Taylor County, Dr. J. C. Hind, Reynolds, January 29, 1927. |
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A Few Essentials for a Successful Medical Society

P. C. QUARTERMAN, M.D.,
Valdosta, Ga.

- Earnest desire for a large attendance at meetings.
- Learn what you can by paying strict attention to scientific papers.
- Eliminate all prejudice against any member of your society.
- Visit indifferent members and insist on them attending meetings with you.
- Enter into discussions on subjects interesting to you.
- Never fail to read scientific papers when requested to do so.
- Think of yourself when you criticise others that are putting forth their best efforts.
- Help members on subjects that you are more familiar than they are.
- Discourage unjust criticism of other members of your society.
- Instigate all members in whatever they undertake to make the society more profitable.
- Strengthen your organization by getting all eligible members.
- Try to aid your officers in every way possible.
- Remember the success of the society is dependent upon your efforts.
- Interest county societies in your Eleventh District Society.
- Concentrate your thoughts on subjects under consideration.
- Timidity in meetings should be overcome.
- Membership dues should be paid promptly.
- Entertain your society as a pleasure and not as a duty.
- Devote due time and consideration to having interesting programs.
- Substantial gains are made through true fellowship. [await you at home.
- Omit excessive stimulation, it is not best for your society, and too, the rolling pin may
- Concise papers are the best, don't ramble all around the world, you may get lost.
- Insist on co-operation, for unity is power.
- Evolution is O.K., but do not monkey with outside affairs.
- This is one of the best societies in the state, and it is
- YOURS. What shall we do with it in 1927?

MINUTES SECOND DISTRICT MEDICAL SOCIETY

Thomasville, Ga. October 8th., 1926

Meeting called to order by Dr. J. A. Summerlin, President.

Invocation by Rev. Marshall Woodson after which Mayor Roy Hay welcomed the visitors to the City of Roses, told them of some of Thomasville's interesting spots and of her recent developments and future hopes. Dr. Summerlin then thanked Mr. Hay and the people of Thomasville for the warm welcome.

The minutes of last meeting were then read by the Secretary. No corrections made, minutes were approved as read.

SCIENTIFIC PROGRAM

1. Dr. Ralph J. Green, of Jacksonville, read a most instructive and interesting paper on certain phases of the diagnosis and treatment of brain tumor cases. This paper was well illustrated by lantern slides. The paper was greatly enjoyed by all who had the privilege of hearing it and the paper was discussed by Dr. Parry, Dr. Sydenstricker and Dr. Ernest Wahl. Dr. Sydenstricker stressed the importance of suspecting patients with constant headaches of having a brain tumor.

2. Dr. Van Schaick, of Jacksonville, read a paper on "The Diagnosis and Treatment of Cranial and Spinal Injuries." This paper, presented along with Dr. Green's paper was most helpful and the discussions brought out in his paper relative to the merits of different ways and means for locating spinal lesions were quite an aid. Shock controlled by glucose and insulin. Operations done under local anaesthesia.

This paper was discussed by Drs. Jarrell, Ainsworth, Wahl.

3. The third paper on the program was presented by Dr. J. H. Hendry, of Bainbridge. Title of this paper was "Renal Tuberculosis". The subject was presented by Dr. Hendry in a concise manner, bringing out the essential points in the diagnosis and treatment of this disease but not dwelling upon the unessentials.

This paper was discussed by Dr. Watt.

BUSINESS MEETING

The Secretary suggested that the present custom of omitting from dues members residing in the towns entertaining the Society during that year be revoked and all members pay \$1.00 a year. Motion to this effect was made, seconded and passed.

Dr. Warnell moved that the Society wire congratulations to Dr. Hardman upon his election. Seconded by Dr. Wheat. Objected to by Dr. Henry Moore on the ground that we should not enter politics as a society. Motion carried. Secretary instructed to send the wire.

Society invited to meet next time at Edison, Ga.

The meeting of this society was held in the re-

ception room of the Nurses Home of the John D. Archbold Memorial Hospital which was nicely and comfortably fitted up for the purpose. After the business session a delightful dinner was served on the lawn by the nurses in uniform under the direction of the hospital dietician, Miss Martin.

COMMITTEE REPORT

Next meeting. Edison, Ga.

Papers to be read at that time by following men:

Medicine—W. W. Jarrell, Thomasville.

Surgery—Gordon Chason, Bainbridge.

Pediatrics—N. Peterson, Tifton.

E. E. N. & T.—I. W. Irvin, Albany.

4. The afternoon session was opened by Dr. V. P. Sydenstricker of Augusta, who read a paper on "Syphilis of the Cardio-Vascular System". This paper was much appreciated by those present because of its clearness and interest. Dr. Sydenstricker stated that it was his belief that 30% of heart disease is due to syphilis. Treatment should be earlier and more vigorous.

Discussion by Drs. Redfearn and Wahl.

The Society was delighted to have as its honored guest Dr. Harvard, President of the State Association. Dr. Harvard gave the society a short talk at this time. He congratulated Thomasville and vicinity upon the beautiful hospital and the society upon its program and attendance. Dr. Harvard urged,

1. Organization of County Medical Societies.

2. Vote for Vital Statistics Bill in General Election.

3. Interest in periodic health examinations.

5. "The Effect of Radium and X-ray upon the Cancer Cells" was the subject of a well prepared technical paper by Dr. Parry. This paper was most comprehensive and showed that the writer was well acquainted with his subject. There was no discussion.

6. The final paper on the program was entitled "Diarrhoeic Prophylaxis" by Dr. J. J. Crumbley of Sylvester. This paper dealt with the seriousness of diarrhoea in babies and the means of preventing same. It was well written and greatly enjoyed.

No discussion.

Adjournment.

Respectfully,

CHAS. H. WATT, Secretary.

ROENTGENOLOGIC ASPECTS OF VARIOUS TYPES OF HERNIA

A review made by James T. Case and W. O. Upson, Battle Creek, Mich. (Journal A. M. A., Sept. 18, 1926), of the results of operation or necropsy in several hundred cases of hernia involving abdominal contents is said to reveal interesting possibilities in the way of roentgenographic diagnosis. The possibility of encountering hernia should be kept in mind during routine barium meal studies.

ANNIVERSARY MEETING, FULTON COUNTY MEDICAL SOCIETY ANNUAL BANQUET, THURSDAY EVENING, JAN. 6th., 1927 7:00 P. M. ATLANTA ATHLETIC CLUB

Toastmaster.....Dr. J. N. Brawner.

Call to order by retiring president, Dr. J. L. Campbell.

Installation of officers for 1927.

Inaugural address by the president, Dr. Marion F. Benson.

A message from the first president, Dr. A. W. Tirling.

"Looking Forward", Dr. E. C. Thrash.

"The Doctor Himself", Dr. Hal C. Miller.

"The Younger Generation", Dr. Dan C. Elkin.

Miscellaneous Business.

Dr. E. C. Davis, chairman of the committee on awards announced that the two Fischer Prizes of one hundred dollars each, had been conferred upon Dr. Dan C. Elkin whose paper on Postoperative Atelectasis of the Lungs, was presented before the Fulton County Medical Society, December 2nd., 1926.

Adjournment.

Respectfully submitted,

GRADY E. CLAY, M. D., Secretary.

COUNTIES REPORTING FOR 1927

HABERSHAM COUNTY MEDICAL SOCIETY

The Habersham County Medical Society announces the following officers for 1927:

President—O. N. Harden, Cornelia.

Vice-President—W. H. Garrison, Clarkesville.

Secretary-Treasurer—R. B. Lamb, Demorest.

Board of Censors—J. K. Burns, J. H. McClure and W. V. Chandler.

COOK COUNTY MEDICAL SOCIETY

The Cook County Medical Society announces the following officers for 1927:

President—S. G. Ethridge, Sparks.

Vice-President—H. W. Clements, Adel.

Secretary-Treasurer—W. M. Shepard, Adel.

Delegate—H. W. Clements.

DOUGHERTY COUNTY MEDICAL SOCIETY-100%

The Dougherty County Medical Society announces the following officers for 1927:

President—N. R. Thomas, Albany.

Vice-President—Hugo Robinson, Albany.

Secretary-Treasurer—I. M. Lucas, Albany.

Delegate—W. L. Davis, Albany.

Alternate—J. P. Tye, Albany.

TALIAFERRO COUNTY MEDICAL SOCIETY

The Taliaferro County Medical Society announces the following officers for 1927:

President—A. T. Ray, Sharon.

Vice-President—T. C. Nash, Philomath.

Secretary-Treasurer—John A. Rhodes, Crawfordville.

BALDWIN COUNTY MEDICAL SOCIETY

The Baldwin County Medical Society announces the following officers for 1927:

President—Geo. L. Echols, Milledgeville.

Vice-President—J. W. Mobley, Milledgeville.

Secretary-Treasurer—H. D. Allen, Jr., Milledgeville.

Delegate—L. P. Longino, Milledgeville.

Alternate—W. M. Scott, Milledgeville.

Board of Censors—U. S. Bowen, J. I. Garrard and E. W. Allen.

TIFT COUNTY MEDICAL SOCIETY

The Tift County Medical Society announces the following officers for 1927:

President—W. E. Tyson, Chula.

Vice-President—D. B. Harrell, Tifton.

Secretary-Treasurer—C. S. Pittman, Tifton.

Delegate—N. Peterson, Tifton.

Alternate—W. H. Hendricks, Tifton.

TALBOT COUNTY MEDICAL SOCIETY-100%

The Talbot County Medical Society announces the following officers for 1927:

President—J. E. Peeler, Woodland.

Vice-President—W. L. Leonard, Talbotton.

Secretary-Treasurer—C. C. Carson, Talbotton.

Delegate—G. L. Carter, Talbotton.

TRI COUNTIES MEDICAL SOCIETY

(Calhoun, Early, Miller)

The Tri Counties Medical Society announces the following officers for 1927:

President—J. G. Standifer, Blakely.

Vice-President—W. C. Hays, Colquit.

Secretary-Treasurer—C. R. Barksdale, Blakely.

Delegate—W. O. Shepard, Bluffton.

Alternate—J. G. Standifer, Blakely.

Board of Censors—P. E. Griffin, P. H. Fitzgerald and J. L. Cheshire.

WASHINGTON COUNTY MEDICAL SOCIETY

The Washington County Medical Society announces the following officers for 1927:

President—N. Overby, Sandersville.

Vice-President—J. B. Dillard, Davisboro.

Secretary-Treasurer—B. L. Helton, Sandersville.

Delegate—E. S. Peacock, Harrison.

Alternate—N. J. Newsom, Sandersville.

Board of Censors—E. S. Peacock, R. L. Taylor and J. R. Burdette.

MACON COUNTY MEDICAL SOCIETY-100%

The Macon County Medical Society announces the following officers for 1927:

President—D. B. Frederick, Marshallville.

Vice-President—C. P. Savage, Montezuma.

Secretary-Treasurer—F. M. Mullino, Montezuma.

Delegate—C. H. Richardson, Montezuma.

Board of Censors—F. M. Mullino and R. E. McGill.

WARREN COUNTY MEDICAL SOCIETY

The Warren County Medical Society announces the following officers for 1927:

President—A. W. Davis, Warrenton.
Vice-President—F. L. Ware, Warrenton.
Secretary-Treasurer—R. C. McGohee, Warrenton.
Delegate—H. L. Earl, Jewell.

MORGAN COUNTY MEDICAL SOCIETY

The Morgan County Medical Society announces the following officers for 1927:

President—W. M. Fambrough, Boswick.
Vice-President—J. L. Porter, Rutledge.
Secretary-Treasurer—Dan M. Carter, Madison.
Delegate—W. C. McGeary, Madison.
Alternate, J. L. Porter, Rutledge.

.. TELFAIR COUNTY MEDICAL SOCIETY

The Telfair County Medical Society announces the following officers for 1927:

President—Frank Mann, McRae.
Vice-President—W. H. Powell, Lumber City.
Secretary-Treasurer—C. J. Maloy, Helena.
Delegate—J. K. Maloy, Milan.
Alternate—W. H. Powell, Lumber City.
Board of Censors—B. M. Kennon and W. H. Born.

GRADY COUNTY MEDICAL SOCIETY

The Grady County Medical Society announces the following officers for 1927:

President—J. E. Harden, Whigham.
Vice-President—A. B. Reynolds, Cairo.
Secretary-Treasurer—J. V. Rogers, Cairo.

FULTON COUNTY MEDICAL SOCIETY

The Fulton County Medical Society announces the following officers for 1927:

President—Marion T. Benson, Atlanta.
Vice-President—E. C. Davis, Atlanta.
Secretary-Treasurer—Grady E. Clay, Atlanta.

WALKER COUNTY MEDICAL SOCIETY

The Walker County Medical Society announces the following officers for 1927:

President—M. W. Spearman, Chickamauga.
Vice-President—J. A. Shields, LaFayette.
Secretary-Treasurer—J. H. Hammond, LaFayette.
Delegate—M. W. Spearman, Chickamauga.

JASPER COUNTY MEDICAL SOCIETY

The Jasper County Medical Society announces the following officers for 1927:

President—J. A. Brown, Shady Dale.
Vice-President—J. F. Anderson, Hillsboro.
Secretary-Treasurer—E. M. Lancaster, Shady Dale.
Delegate—F. S. Belcher, Monticello.

WARE COUNTY MEDICAL SOCIETY

The Ware County Medical Society announces the following officers for 1927:

President—J. E. Penland, Waycross.
Vice-President—C. M. Stephens, Waycross.
Secretary-Treasurer—Kenneth McCullough, Waycross.
Delegate—W. C. Hafford, Waycross.
Board of Censors—H. J. Carswell, R. L. Johnson and D. M. Bradley.

BOOK REVIEW

Practical Surgery of the Joseph Price Hospital
A unique book has come from the pen of James William Kennedy, M. D., F. A. C. S. in which nothing new is claimed but in which his teacher, Doctor Joseph Price is memorialized. His teachings and discussions of methods, original, not following the usual stereotype form of history, etiology, pathology and surgical treatment are set down in an interesting manner. This book deals with a review of the work done at the Joseph Price Hospital by Doctor Price. The twenty seven chapters cover all phases of surgery with a strong preference for gynecological and obstetrical cases. The chapters on Surgical Shock, Neglected Umbilical Hernia and Cesarean Section also the chapter on the Toilet of the Hands and the Rubber Gloves are of unusual interest to the specialist, the surgeon and the general practitioner. The originality of Doctor Price and his epigrammatic sayings in terse sentences, given in a chapter by itself is a piece of valuable literature. This book should be in the library of every practitioner. It is published by the F. A. Davis Company, Philadelphia, Pa.

THEODORE TOEPEL, M. D.

BOOKS RECEIVED

The Specialist in General Practice, Compiled by Francis W. Palfrey, M. D., Instructor in Medicine at Harvard University in collaboration with fourteen other teachers of Harvard Medical School. Octavo 748 pages. Price, Cloth \$6.50 net. Publishers: W. B. Saunders Company, West Washington Square, Philadelphia, Pennsylvania.

A Manual of Pharmacology and its application to Therapeutics and Toxicology, by Thorald Sollmann, M. D., Professor of Pharmacology and Materia Medica in the School of Medicine of Western Reserve University, Cleveland. Third Edition; entirely reset. 1184 pages. Price, cloth \$7.50 net. Publishers: W. B. Saunders Company, West Washington Square, Philadelphia, Pennsylvania.

Woman's Auxiliary Medical Association of Georgia

OFFICERS

President.....Mrs. C. W. Roberts, Atlanta Parliamentarian.....Mrs. Allen H. Bunce, Atlanta
Vice-President.....Mrs. W. L. Davis, Albany Secretary-Treasurer, Mrs. Marion T. Benson, Atlanta
Honorary President, Mrs. James N. Brawner, Atlanta

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2nd District.....Mrs. Gordon Chason, Bainbridge	8th District.....Mrs. Paul Holliday, Athens
3rd District.....Mrs. R. H. Pate, Unadilla	9th District.....Mrs. J. H. Downey, Gainesville
4th District.....Mrs. R. S. O'Neal, LaGrange	10th District.....Mrs. W. W. Battey, Sr., Augusta
5th District.....Mrs. Marion C. Pruitt, Atlanta	11th District.....Mrs. B. H. Minchew, Waveross
6th District.....Mrs. C. H. Richardson, Jr., Macon	12th District.....Mrs. T. C. Thompson, Vidalia

COMMITTEES

COMMITTEE ON PROGRAM AND ENTERTAINMENT

Mrs. H. M. Fullilove, Chairman . . . Athens
Mrs. Paul Holliday Athens
Mrs. W. H. Cabaniss Athens
Mrs. R. M. Goss Athens

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Mrs. J. Cox Wall, Chairman Eastman
Mrs. Chas. C. Hinton Macon
Mrs. B. H. Minchew Waveross

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Mrs. O. H. Matthews, Chairman . . . Atlanta
Mrs. T. F. Abercrombie Atlanta
Mrs. J. W. Daniel Savannah

FINANCE COMMITTEE

Mrs. Nichols Peterson, Chairman . . Tifton
Mrs. A. H. Black Thomaston
Mrs. A. S. M. Coleman Douglas

COMMITTEE ON ORGANIZATION

Mrs. L. F. Lanier, Chairman . . . Rocky Ford

SPECIAL NOTICE

State dues should be sent by March 1 to the State Treasurer, Mrs. Marion T. Benson, Springdale Road, Atlanta, Georgia. Also a complete list of your membership for our State Directory, designating your officers. Please see that this is done at once.

COMMUNICATIONS

Dr. Marion T. Benson, President
Fulton County Medical Society
Atlanta, Ga.

Dear Dr. Benson:

In order to promote a greater interest in the study of neuro-psychiatry among the younger members of the medical profession, I wish to offer through the Fulton County Medical Society, two prizes of \$50.00 each, to be awarded on July 1st, 1927 and January 1st, 1928, for the best neuro-psychiatric case report submitted by a member of the House Staff of any hospital in the state of Georgia excepting the State Sanatorium at Milledgeville. Should the interest stimulated by these awards be sufficient, I shall continue the offering of a similar, or larger award for a period of five years.

Very truly yours,

N. M. OWENSBY, M. D.,

January 6, 1927.

Atlanta, Georgia.

NEWS ITEMS

The Ware County Medical Society sponsored a clinic in pediatrics held on January 14, conducted by Drs. W. A. Mulherin and Paul Eaton, members of the faculty of the University of Georgia, Med-

ical Department, Augusta, which was very instructive and attended by practically every member of the society. Sixty five children were examined and their parents advised as to the treatment necessary for the best interest of the children. After the clinic, the society gave a banquet at the Murson Hotel.

The physicians of Waveross have succeeded in having the entire supply of milk for their city pasteurized by the Dairymen's Association.

Dr. B. R. Busse'l, formerly of Rochelle, has removed to Waveross and affiliated with the Ware County Medical Society.

Dr. Jas. F. Burdshaw, Augusta, announces the opening of a private hospital on the Hill in Augusta at an early date for the treatment of diseases of the eye, ear, nose and throat. He has devoted much time to the study of these diseases in some of the leading hospitals of the country. The ideal selection of the location for the institution insures the quietude and attractive surroundings which are so helpful to patients.

H. M. Patterson & Son, Undertakers, Atlanta, have just received their new motor coach ambulance. One of the most modern, equipped with every convenience for the comfort of patients and attendants.

Dr. W. A. Walker, Cairo, built his first sanitarium in Cairo in 1900 and by the year 1912 the demands for admittance in this institution had grown until he built a new and more modern sanitarium which was enlarged and improved in 1915, this became inadequate in 1922 when he built the hospital they now occupy which is thoroughly modern and associated Dr. A. W. Rehberg with him and continued to maintain it as a private infirmary. Recently the institution has been incorporated, made a general hospital and nurses training school. The entire membership of the Grady County Medical Society are stockholders and members of the visiting staff. The equipment of the institution is thoroughly modern with ample X-ray facilities and quantities of radium.

Dr. C. W. Findley, Vidalia, is in Chicago taking a postgraduate course in eye, ear, nose and throat diseases.

Dr. W. N. Adkins, Atlanta, has been elected chief of staff of the pediatric department at Grady Hospital; Dr. T. C. Davison, vice-chairman; Dr. Wm. Howard Hailey, Secretary.

Dr. B. L. Helton, formerly of Deepstep, has removed to Sandersville.

Dr. W. F. Reavis, Waycross, returned recently from New York City where he has been for some time taking a postgraduate course in neurology and announces the removal of his offices to the Walker building.

The Clarke County Commissioners reappointed the trustees of the General Hospital and the Tuberculosis Hospital, Athens, to serve this year.

Dr. Fred L. Webb, Macon, has been formally elected by the city council as city physician. He succeeds Dr. O. S. Spivey, who resigned on account of other duties and business interest.

Dr. Joe. R. Clemmons, Superintendent of the Macon Hospital, filed his report with the city council for the year 1926 showing that they had admitted 3067 patients during the year, being 268 more than admitted during the previous year and the total cost of operating was \$132,187.00. After paying off the deficit for 1925, purchasing two new trucks, ambulance, repainting the building, reorganizing the laboratory and X-ray departments, the report shows the institution to be free of debt and better equipped than ever before for the treatment and care of patients.

Dr. Laetus Sanders, Commerce, has been appointed trustee of the Georgia State Sanitarium, Milledgeville, by Governor Walker to succeed the late Dr. William Rawlings of Sandersville.

Grady Hospital records show that thirty thousand patients received treatment at the institution

during the year 1926 and out of this number there were only three hundred and twelve deaths.

The Troup County Medical Society began an active anti-tuberculosis campaign in January. After studying the problem in other localities, are endeavoring to get the exact number of patients suffering with all types and forms of the disease, the number that come in contact, source of infection where possible, living conditions, age and racial characteristics. Many patients are applying for physical examinations and treatment since the work of making the survey began.

Dr. W. H. Hodges, Watkinsville; Dr. E. H. Kenimer, Bishop, and Dr. Herbert Elder, Bogart, have been appointed by the Oconee County Board of Education to vaccinate every child of school age before being enrolled in the public schools of the county unless they furnish satisfactory evidence of having been successfully vaccinated against small-pox.

Dr. J. B. Warnell, Cairo, a prominent and influential physician of South Georgia, was recently elected mayor of Cairo. He was president of the Grady County Medical Society for a number of years, succeeded by Dr. J. E. Harden, Whigham.

The Heard County Medical Society has been reorganized and announce the following officers for 1927: J. W. Daniels, President; R. P. White, Vice President; P. A. Kish, Secretary-Treasurer.

The University of Arkansas, Fayetteville, Arkansas, began January 6th an educational service which will be broadcast over its radiophone station KUOA under direction of Dr. Allen A. Gilbert, University Physician, and will be continued every Thursday evening at 8 o'clock. The papers will be prepared especially for this medical extension service by outstanding men in the medical profession.

The Western Physiotherapy Association will hold its ninth annual meeting in Kansas City, April 8 and 9, in the Hotel President. The Western School of physiotherapy will hold its meeting at the same place from April 4 to 7. Full information and prospectus may be obtained from Dr. Chas. W. Fassett, Secretary 115 East 31st Street, Kansas City, Missouri.

Dr. B. H. Minchew, Waycross, delivered an address recently before the Lions Club on "The Development of Medicine in the South". He paid special tribute to the southern physician as a professional man and a citizen of his community and before the day of anesthesia, he said, "The southern physician was a pioneer in his profession", and pointed out Dr. Ephram McDowell as one of the first men in the world to perform certain major operations, also Dr. Marion Sims, of South Carolina, as the first to perform abdominal

surgery, and that these operations were performed before the discovery of anesthesia, and that the Woman's Hospital in New York was one of the greatest institutions of its kind in the world and founded by Dr. Sims. The discovery of anesthesia by Dr. Long of Georgia, was cited as the greatest contribution to surgery that was ever made. Dr. Beatty, Rome, Georgia, and Dr. Rudolph Matas, New Orleans, were pointed out as the foremost leaders in their profession.

Dr. J. W. Palmer, Ailey, was appointed Trustee of the Georgia Baptist Hospital, Atlanta, at a convention of the Georgia Baptists held in Valdosta in December.

Dr. Hugh M. Lokey and Dr. Lewis S. Patton announce the removal of their offices to the sixth floor of the Medical Arts Building, Peachtree Street, Atlanta.

The Murray County Medical Society met in Chatsworth on January 26.

Dr. V. M. Haygood, formerly of Augusta, has removed to Savannah and opened offices at 18 Broughton Street.

The Tattnall County Medical Society met at the Nelson Hotel in Reidsville on January 12. And another regular meeting of the society was held at the same place on February 10.

Dr. A. D. Little, Thomasville, was elected chief in surgery; Dr. C. H. Ferguson, chief in medicine; Dr. J. T. King, chief in eye, ear, nose and throat diseases, at the annual meeting of the John D. Archbold Memorial Hospital.

The State Board of Health held its annual meeting on January 25.

The Randolph County Medical Society held a free clinic in general medicine, pediatrics and orthopedies February 3 at the Patterson Hotel, Cuthbert.

OBITUARY

Dr. Joseph M. Thomas, Griffin, died at his home December 24, 1926. He was born at Oxford, Georgia, February 3, 1886. He was an alumnus of Emory University School of Medicine and married Miss Addavale Kincaid of Griffin, October 7, 1896. Dr. Thomas was a member of the Masonic Fraternity, Shrine, Medical Association of Georgia and the First Methodist church. He is survived by his widow, two sons, Kincaid and Lewis Thomas, of Griffin; one daughter, Mrs. William McDougall, Atlanta; one sister, Mrs. A. J. Perryman, Talbotton; one brother, W. P. Thomas, West Point. Funeral services were conducted by Rev. Horace S. Smith from the First Methodist church and interment in Oak Hill cemetery.

Dr. Frank A. Wynne, Dallas, Texas, former well known physician of Atlanta, died at his home December 21, 1926. He served as a captain during the world war in the American Expeditionary Forces and received injuries which resulted in his death. He is survived by his widow, one brother, Walter R. Wynne, Dallas; two sisters, Mrs. Elizabeth Stanfield and Mrs. Emmie Wynne Balley, Atlanta. Interment was in the cemetery at Cedar-town, Georgia.

Dr. Andrew Fletcher Quillian, Bradentown, Florida, died at a hospital in Atlanta, January 4, 1927. He was born in 1886 and graduated from the Atlanta School of Medicine in 1910 and practiced his profession in Atlanta until about two years ago when he removed to Bradentown. He enlisted in the medical corps at the beginning of the world war and served overseas as captain for more than a year. Dr. Quillian is survived by his widow, two daughters, Misses Christine and Francis Quillian; his father, Dr. J. A. Quillian, Winterville; and one sister, Mrs. Claude Tuck, Winterville, Georgia.

Dr. W. A. Johnson, Varnell's Station, died at the home of his sister, Mrs. Robert Harvey, West First Street, Rome, December 31, 1926. For ten years he had lived at Varnell's Station but most of his life was spent in Rome. He is survived by one son, Joseph Johnson, Rome; one daughter, Mrs. Carden Bunn, Cedartown; three sisters, Mrs. E. W. Best, Mrs. Robert Harvey and Miss Lizzie Johnson; two brothers, S. S. Johnson, Sr., Floyd county, and E. C. Johnson, Montgomery, Alabama. Funeral services were conducted by R. C. Cleckler, pastor of the First Methodist Church, from the home of his sister, Mrs. Harvey and interment in the Mizpah cemetery.

Dr. Faris C. Richards, Jasper, died at his home December 22, 1926. He was born in 1860 and graduated from the University of Georgia Medical Department, Augusta, in 1887. He was greatly beloved and one of the most influential citizens of his community. He is survived by his widow, four daughters, Mrs. J. H. Dennis, Fort Lauderdale, Florida; Mrs. J. P. Dell, Columbus; Mrs. O. W. Hendricks, Blue Ridge; and Mrs. T. W. Whitfield, Jasper; two sons, Will and J. A. Richards, of Jasper. Funeral services were conducted from the Jasper Methodist church.

Dr. William R. McCrary, Decatur, died at the home of his daughter 407 Sycamore Street, Decatur, January 18, 1927. He was born December 15, 1861, and resided the greater part of his life in Senoia. He is survived by his widow; one son, and owned large farming interest. Dr. McCrary married Miss Lena Pinkston, of Greenville, in 1890. He was a member of the Methodist church at Senoia. He is survived by his widow; one son, Alva P. McCrary; one daughter, Mrs. Luther H.

Randall, Decatur; two brothers, John A. and Joseph B. McCrary. Funeral services were conducted by Dr. J. W. Quillian from the Senoia Methodist church and interment in the churchyard.

MARRIAGES

Dr. W. M. Folks and Miss Antoinette Morris of Waycross, were married recently.

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examination:

ASSISTANT MEDICAL OFFICER
ASSOCIATE MEDICAL OFFICER
MEDICAL OFFICER
SENIOR MEDICAL OFFICER

Applications will be rated as received by the United States Civil Service Commission at Washington, until June 30, 1927.

There is especial need for medical officers qualified in tuberculosis or neuropsychiatry, for duty at hospitals of the Veterans' Bureau. There are a number of vacancies in positions in the Indian Service which call for training in general medicine and surgery. In addition, there is opportunity for appointment of specialists in practically all branches of the profession.

In addition to the Veterans' Bureau and the Indian Service, appointments from these examinations will be made to the Public Health Service, the Coast and Geodetic Survey, the Panama Canal Service, the Departmental Service at Washington, and other branches.

The demand for specialized medical officers in the Federal service is constant and the supply of eligibles is rarely equal to the demand.

Applicants will not be required to report for written scholastic tests, but will be rated on their education and training, and their practical experience.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. civil-service examiners at the post office or customhouse in any city.

ABBOTT LABORATORIES SALES SCHOOL

The salesmen of the Abbott Laboratories and the Dermatological Research Laboratories from the Middle West and the South met in the home offices of that company, in North Chicago, the week of December 27. Over forty representatives were present at this meeting, including one from the Pacific Coast, two from Texas, three from Canada, one from Atlanta, Ga., and three from the Eastern sales force.

Four days were spent in intensive study of the Abbott and D. R. L. products. Playlets were

staged illustrating sales points and round tables were conducted on subjects of importance to the salesmen and the firm. On Tuesday evening, December 28th, the salesmen were invited to attend the Annual Christmas Dinner and Dance given by the employees of the Abbott Laboratories. Over 500 were in attendance at this function. On the following evening the salesmen were entertained at a banquet given by the Abbott Laboratories in their own cafeteria, recently installed at the North Chicago plant. Addresses were given at this meeting by Dr. Alfred S. Burdick, President of the Abbott Laboratories, who reviewed the progress of the company and introduced Dr. G. W. Raiziss, Professor of Chemotherapy, University of Pennsylvania, who spoke on the newer arsenical compounds, particularly Bismarsen, a new combination of bismuth and arsenic; Dr. Roger Adams, Professor of Chemistry, University of Illinois, who told of his investigations in the field of chaulmoogric acids; and Dr. A. G. Young of the University of Michigan, who spoke of the treatment of arthritis deformans with o-iodoxy benzoic acid, amidoxyl. A meeting of the Eastern sales force of the Abbott Laboratories was held in New York City in January.

THE CONTROL OF DIPHTHERIA

Notwithstanding the fact that the prevention of diphtheria is engaging the attention of city boards of health and private practitioners throughout the country, and many thousand immunizing treatments have already been given, it will be a long time, we fear, before diphtheria antitoxin goes out of use, or even before the need for it becomes appreciably less than it is now. Much more extended work along the line of prevention will have to be done than has as yet been done, before diphtheria disappears from the list of children's diseases.

The makers of Diphtheria Antitoxin, therefore, are to be commended for doing their utmost to improve the quality of the antitoxin and the syringe package in which it is put up. Parke, Davis & Co., who began supplying diphtheria antitoxin more than thirty years ago, announce some recent developments in the purification of this product and the concentration of the dose volume. See their advertisement in this issue, "Latest Refinements in Diphtheria Antitoxin."

COAGULATION TIME IN ETHYLENE ANESTHESIA

It is observed that during operations in which ethylene is employed as the anesthetic, there is an apparent increased bleeding from the surfaces made on cutting. In order to collect definite data on this point, David C. Straus and Henry H. Rubin, Chicago (Journal A. M. A., Jan. 29, 1927), undertook the study of the coagulation time and the bleeding time on twenty-five patients receiving ethylene gas for anesthesia. The conditions for which these patients were operated on were varied. Determinations of the coagulation time and the bleeding time were made immediately before, once during, directly after, and the day following the administration of the anesthetic. In practically every instance, the coagulation time was shortened during the administration of the anesthetic. This varied from one-half minute in some cases to three minutes. A further drop was noted at the termination of the anesthesia. In four cases, the time remained the same during as compared to before, although it dropped at the end of narcosis. In only one instance was there a prolongation of the time, this being one-half minute longer following the anesthesia as compared to that noted before. The most pronounced decrease in time was from six minutes before to two and one-half minutes after. This was observed in a case of common duct stone with jaundice. On the day following the operations, the coagulation time would increase, in many instances returning to that noted before the induction of anesthesia. The bleeding time showed a corresponding fall, although this was not as marked as in the case of the coagulation time.

FOR SALE

Practice and nine room-home with all modern conveniences on Coastal Highway, town of seven hundred population, accredited high school, churches of all denominations. No competition, collections last year \$4,300.00. Appointments \$75.00 per month. Fine fishing and hunting. Excellent location for an elderly man. If interested, come—don't write.

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Darien, Ga.

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Position wanted by young lady in good town in Georgia. Trained at Wesley Memorial and Grady Hospitals. Can do routine laboratory work, including Wassermann's blood chemistries and tissues. R. C., Box 166, Rockmart, Ga.

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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA

PUBLISHED MONTHLY under direction of the Council

Volume XVI

Atlanta, Ga., March, 1927

No. 3

Original Articles

THE SURGICAL CLEARING HOUSE*

E. C. DAVIS, M.D.

Atlanta

At the risk of appearing pedantic, or even boastful, I am constrained to sound a note of warning to the profession in regard to the indiscriminate practice of surgery by many not trained or experienced sufficiently to justify the undertaking of problems which may arise in the course of what may have appeared a very simple case when the operative work was first undertaken.

The desire to operate, with its luring possibilities of a glamorous display of blood-shedding, and oftentimes an amazed audience commenting audibly about the courage and skill of the operator, has led some to undertake those things for which they were totally unfitted. There are some who may have been actuated by the prospect of a fee, which they were loath to see go to some one else, even though he possesses a much higher degree of skill and training to cope with such possibilities.

A recent visit to the clinics of Mayo, Deaver, and to Crile, observing the great number of patients upon the operating tables, showing from one to a half-dozen scars, results of previous operations, causes us to consider the oft repeated statement of the laity that having to undergo one operation was but the

prologue to a series of operations followed ultimately by chronic invalidism, or a tragic end, after a dramatic effort to remove the entire offending pathology.

Again how often do we find a beautiful little scar over McBurney's point, an appendix removed, no relief following, and when a larger incision and a more complete exposure made, a small ovarian cyst, a septic kidney, ureteral stone or stricture, a diseased gall bladder, or other pathology, manifests itself, which has previously been overlooked.

The overlooked gall bladder, common duct pathology, the incomplete or too extreme efforts at surgical relief, has ultimately led to the path of the so-called surgical clearing house.

The poor surgical risks, comprising a large class of diabetics, syphilitics, tuberculars, nephrities, hepatics, so-called blood dyscrasias, endocrinological disfunctions, thyroid extremes, all comprise a class requiring most painstaking care and preparations before being subjected to serious surgical procedures. Yet, on the other hand, many of these patients requiring operations may be so prepared as to safely undergo such treatment for their relief.

How easy and simple it is to incise the skin, and how difficult and almost impossible does it become to reach the point when the skin may be justifiably and safely again approximated. To start is simple, but the difficulty does not arise until we are endeavoring to finish. How much judgment is required to know first when not to operate, later to know

*Read before the Medical Association of Georgia, Albany, Ga., May 13, 1926.

what to do, how much the patient may undergo, and when it is safest to stop. To re-adjust an old adage, we would say, "He who operates and leaves a living patient, may at a later date allow this same patient the privilege of being operated upon under more favorable and propitious conditions."

Too often have we known patients consulting us, and being advised to leave the present conditions alone, that to live even handicapped was better than to succumb under a brilliant operation, and later to learn that they had been operated upon and were taken to their Father's perhaps untimely.

I would not dare write this, and under no conditions do I wish to reflect upon my brother practitioners, for well do I know that surgical training is improving constantly, and the young man of today goes forth with experience and training of which we older men were not even allowed to more than dream. But, on the other hand, some are still too keen to operate, and the patient seeking an operation can find some one with a keen scalpel, a lax conscience, and I am ashamed to say a desire for money.

When the World War came on an interruption was made to the plan actively agitated to require a certain time of apprenticeship under a skilled surgeon, together with the present hospital internship, with time and experience sufficient to justify the development of that talent which to a certain degree must be inherited, but may be greatly improved by judicious guidance, training and experience. These things cannot be attained by the perusal of text books, assiduity in the laboratories, but require for their full fruition personal guided contact with observation and study of patients and the end results of operative procedures. To develop well requires a large number of cases painstakingly studied and carefully followed up.

How often do we find a hopelessly ill patient clamoring for operative relief when we know full well that any type of operation would only add to suffering and probably shorten the period of life. These cases are coming to us with distressing frequency, and on being advised against operation, seek others with a different viewpoint, and are operated upon either to die on the operating table, or

a few days after leaving the operating room.

Again improperly performed operations when the patient does not succumb, but is left in a much worse condition than before anything was done. We have about passed beyond the ovarian removal fad with its train of neurotics, and even worse; we are leaving the reckless gastro-enterostomies, the uterine fixations, the kidney fixations, and many other operations too numerous to mention, and gradually applying surgery to those essential conditions when relief is reasonably promised, and the poor patient not at least left in a worse state than before she fell into our hands. We have found that a person desiring an operation can have it done, provided he goes to a sufficient number of physicians, whether it be needed or not.

It is not my intention, nor the motive of this paper, to decry operative surgery, but to have it so regulated that it will be skillfully done, and these poor sufferers not be forced to enter the so-called surgical clearing houses to rectify the errors that have previously been made. Much progress has been made,—the young man goes forth inestimably better trained now than in previous years, but sometimes we think he spends too much time taking histories, and making routine laboratory examinations, when he should be examining patients, getting into the operations and later operating first under the guidance of a man of much experience, and then doing the work himself.

Much time is essential to cultivate surgical judgment, and something which cannot be described enters intimately into the development of this great pre-requisite to surgical success. For you find occasionally men well versed in anatomy, pathology, who can talk learnedly of various lesions, but are totally unfitted to skillfully conduct a serious case to a successful consummation.

We have also at times found men who have reached the middle period of life, and suddenly develop a strong desire to change their line of practice, especially have we known such men having enjoyed large practices in general work, referring cases to surgeons, and seeing in the hands of skilled men an operation appear so simple that they have determined to perform the operation themselves.

How easy a hysterectomy seems after practice, how difficult when complicated, and the limitless possibilities for disaster even in the hands of the experienced. When undertaken without the necessary experience, how often do they become hopelessly lost, and flounder through, guided often by an inexperienced intern, or making adjustments totally different from what nature intended.

Have you not seen a stomach anastomosed to transverse colon, or a fracture of a forearm with radius wired to ulna? It is needless to say that when one realizes his lost condition he is apt to make many serious breaks in execution or technique.

There is still another side to this very serious situation which must not be overlooked, and that is the desire on the part of some of our so-called over-conservative men treating these cases when they should be referred to the surgeon. The advanced cases of cancer, some of the more serious gastric ulcers or duodenal ulcers, pass through the hands of the medical man, and only too late are they sent to the surgeon when nothing can be done, and vainly do they urge an operation. Much firmness and stable judgment is essential to avoid the pitfalls of operating when no benefit may result.

As mentioned in the beginning of this paper, noticing how many cases in the hands of our leading surgeons have scars of one or more preceding operations, we began to take stock in our own work house, and we find many of these scars may have resulted not from errors but from conditions other than the one being treated at that time, or they may have been preliminary to the serious operations which we witnessed.

A letter from Dr. Crile of Cleveland, states "the records for the past two years show that of 28,971 cases registered at the Cleveland Clinic approximately 7,859 cases, or about 27.1% have had previous operations." Also a communication from Dr. Jno. B. Deaver of Philadelphia, states that "during 1925 there were 2,476 operations performed at the Lankenau Hospital, and of this number, 479 had had previous operations. Although in the vast majority of cases the previous operation had no bearing on the condition for which

operation was performed in 1925."

Both of these communications go to show that many patients are seeking relief at the hands of our most distinguished and skilled surgeons, some of whom have vainly tried others before leaving home.

How many cases of abdominal adhesions may be the results of rough handling of tissues, the needless use of retractors, the introduction of foreign, irritating material into the abdomen, the traumatization or careless handling of very sensitive tissues which nature promptly resents and throws out bands of adhesions to protect the patient from leaking of intestines, or other harmful influences. This is so often crudely and harmfully done with constant pain in the abdomen, intestinal stasis with its train of toxemias, or even a later resulting obstruction.

But why needlessly prolong this paper,—my desire is not to be pessimistic or appear cynical or present a misanthropic attitude, but to enter a plea for the patient and create a liberal discussion of much needed condition now presenting itself to us in our daily work.

DISCUSSION ON PAPER OF DR. DAVIS

Dr. Kenneth McCullough, Waveross: It strikes me as being rather presumptuous for a man of my limited experience to attempt a discussion of such a well presented paper, by such a well-known man and pioneer in his field as is Dr. Davis. His title was well chosen, "The Surgical Clearing House," and brings to mind the most essential point in every case—diagnosis. Whether diagnosis is better established by a group of men practicing together, giving each other the benefit of each one's experience, or whether diagnosis is better established by the individual who uses his eyes, ears, hands, and all his faculties which our illustrious predecessors had in the past, in the days before the laboratory was known, I am not here to say. Certain it is, however, that any man who undertakes to treat a surgical condition without first assuring himself that every means has been exhausted to determine the condition for which he is about to operate, or who determines that a certain condition exists and then does not make a thorough investigation of the field, is guilty of criminal negligence. I was taught that a large incision heals as quickly as a small one, although the scar may not look so well. It is certainly better to have an incision which will permit inspection of the gall-blad-

der and other organs as well as the appendix than to have the appendix out and the patient still suffer from gall-bladder disease. The question of surgical judgment is said to be to know when to take the gall-bladder out and when to leave it in. Surgical judgment is only gained by experience, and we can only be taught by serving an apprenticeship under some man who is competent to teach.

Another important point Dr. Davis touched on was the preparation of the patient. Too often we have a beautiful operation, the pathology removed, but the patient has trouble because he is not kept in bed long enough, or did not have proper pre-operative care.

To sum up, I would say that the most essential point is diagnosis, for when all is said and done anyone can treat a condition if he knows what he is to treat, but knowing what one has to treat is the hardest part of the whole business.

I thank Dr. Davis for his paper.

Dr. J. M. Barnett, Albany: It gives me pleasure to have the privilege of discussing a paper in which the ground has been so thoroughly covered that it leaves little for argument and much for thought. Dr. Davis is one of the ablest contributors to the medical literature of Georgia, a master in the art of surgery, a leader for better organization, a teacher.

There is no one better equipped to handle the subject than is Dr. Davis. He has pointed out needed reforms in the field of surgery, but has given us no clear and concise idea regarding the adoption of corrective measures. We find it very difficult to conceive of a single plan that will bring all the needed results, but I shall attempt to summarize in a brief manner some of the steps that would lead to this goal:

In the first place, I would suggest educating the public, and, through the public, demands will be made which will be the non-resisting incentive that cannot be evaded by the most careless and indifferent surgeon. The indiscriminate practice of doing needless operations is found not only in the field of abdominal surgery, but in all branches of surgery. The time is not far distant when educational measures will be instituted, through our Association, to put a stop to that so-called friendship and family surgery which is prevalent in every community. The public is anxious and willing to confide in us, is willing to believe in us, but it is essential that we demonstrate that we are dealing fairly with them; then they will deal just as fairly with us, and will accept our leadership.

The American College of Surgeons is doing its part to perfect our hospital organization,

giving us annual inspections and follow-up improvements through which the public should derive great benefit, and which should instill higher incentives in the surgeon, should stabilize and standardize hospital organization—all to the betterment of the individual patient, the general public and the surgeon himself.

Postgraduate service, which has recently been introduced by our State University, is doing a great work toward overcoming many of our serious obstacles. Properly organized, and with sufficient encouragement, this service can be made equal to the best. This group does not propose to teach doctors how to make physical examinations; they are studying, with the various county societies, the best methods for handling difficult problems. They create within the individual workers that ennobling devotion to human service which has so signally characterized the conscientious practitioner of all times. Their work carries with it a feeling of co-operation that makes each unit or county society feel its individuality.

Group practice as opposed to individual practice has given tone to modern surgery, and to medicine. With the complexity of technique used in reaching a diagnosis in complicated cases, it is next to impossible for a single individual to possess the range of knowledge necessary to handle alone many cases of surgery. However, in group practice, we find that its strength and value revert back to the individual upon whose shoulders rests the responsibility, and in group work that individuality must be preserved and recognized. When group work is good, it is very good, but when it is bad, it is an endless chain of sorrow, and, especially so, when it promises more than it performs. We will always have with us the individual worker, and it is to him that we make our earnest appeal for more thought, better work, longer hours of study, frequent consultations, and closer observation—the sum total of which will mean better men, higher ideals, and loyal surgeons serving a noble profession.

Dr. R. M. Harbin, Rome: I think Dr. Davis has brought before us a very serious question, one which puzzles every serious minded surgeon as well as physician. He has stated the problem well and it is a very complex problem. We have to understand the patient, understand the family, the family physician, and perhaps a premature opinion for this or that which has been expressed. Therefore the surgeon must hold himself in check against these influences, and I do not believe that any one man is a sure solution of the problem.

I believe there is one method for solving

this problem. We have been trying it out for six years, and I have found personally that I frequently would have made a mistake if I had been left alone, with the one man diagnosis method. We have constantly made it a rule for six years that no major operation shall be performed, except it is for traumatic cases, unless at least one other man of the staff says it is indicated, and if there is any doubt a third, or perhaps a fourth man is called in until the question can be conscientiously settled. After that if a mistake occurs I think we cannot be criticized. We all make mistakes, but if we examine the patient carefully and discuss the case thoroughly with competent associates we have done our duty, regardless of results.

SOME ESSENTIALS IN GOOD SURGICAL PRACTICE*

RALPH H. CHANEY, M.D.
Augusta

To present a subject which has so many wide possibilities, it is necessary for a moment to consider the main essentials. From the standpoint of therapeutic procedure, surgery may be divided into four divisions; namely, surgical diagnosis, surgical pathology, surgical technique, and surgical aftercare. Interwoven with each of these divisions and inseparable from any one of them is that factor which is best described as surgical judgment. While each of these divisions plays its distinct role in the performance of the whole, frequently the major degree of attention is directed to a single division to the neglect of another, detriment thus resulting to the whole. It is difficult to place any definite degree of importance on any single division and any classification of their respective importance must of necessity be arbitrary. That essential factor, surgical judgment, so completely involves a balance of all the other factors that no comparative valuation can be placed on it, for without it no individual can do good surgery. In teaching students I like to express the relative importance of each division in terms of percentage. Thus 50 per cent of importance is carried by surgical diagnosis; 25 per cent by surgical pathology; 15 per cent

by surgical technique, and 10 per cent by surgical aftercare.

Surgical diagnosis is the most important essential in good surgical practice. This can hardly be questioned, for unless we, as surgeons, are going to persistently and increasingly improve the diagnostic side of our science, it will be impossible to claim to be other than artisans modeling our reconstructions from blood and bone. Not infrequently, often due to lack of inertia, a tendency arises to accept "ready-made" diagnosis, in which instance the surgeon is only a carpenter erecting a structure for the internist who really is the architect. Even where the internist is capable, this is not to the best interest of the patient, who has a right to expect the combined skill of both individuals when in reality he or she is receiving only the advice of one and the technical skill of the other. Again the surgeon too frequently is prone to operate without personally checking up the patient, because of fear of offending the physician who referred the case. If we were all infallible no danger would arise, but such is not the case and frequently the patient suffers and surgery in a measure loses its good name. For example, I have seen a patient sent to the surgeon with a diagnosis of acute appendicitis and operation has revealed a normal organ. Does the removal of the structure benefit the patient and reflect glory on surgery when the after course of events shows that the nausea, vomiting and indefinite abdominal pain were the result of early pregnancy, which a careful history and exact examination would have revealed, possibly avoiding the post-operative abortion that occurred? Again, a young child presents right abdominal pain, rectus rigidity, leucocytosis; classical appendicitis; but the operation reveals a normal organ, the real cause of symptoms then being found in the right chest, the signs of which could have been determined previously by careful examination. Likewise I have seen a normal appendix removed on the diagnosis of acute appendicitis, where a careful history would have indicated recurring diarrhea and examination of the stool would have shown infestation with amœba. The errors in the diagnosis of right abdominal conditions are too numerous even after

*Read before the Tenth District Medical Society, Augusta, Ga., Oct. 28, 1926.

prolonged study of cases to allow them to be increased by failure to use sufficient care in examining our patients.

Surgical pathology, the second essential, is so interlocked with surgical anatomy, especially with its developmental aspect, that the importance of the latter is frequently overlooked. Unless the surgeon knows the mode of development of the various structures, how is he to differentiate the truly pathologic from the anomalous? For instance, when the cecum is found in the position normally occupied by the hepatic flexure, does he consider it pathologic or does he realize that it exists in such a location simply because of its failure to move from its point of primary fixation to its usual final place of abode? Again, unless he knows the normal development of the right iliac region, will he not frequently mistake the development of a prominent ileocecal or ileocolic fold for an abnormal inflammatory band and destroy essential vascular supply.

While it is important to stress the value of an exact knowledge of anatomical development the importance of pathology must not be overlooked. The frequency with which the appendix is removed in cases of tuberculosis of the terminal ileum without the latter condition being recognized indicates a lack of essential pathological knowledge. Finally unless the surgeon has a real knowledge of the mode of spread of malignant tumors is he in a position to deal with these lesions? Also since our developing knowledge indicates that we can forecast the degree of malignancy from the degree of cell differentiation, is not the surgeon seriously handicapped if he is ignorant of such fundamental facts of pathology?

Surgical technique stands in third place in importance among the essentials of good surgical practice. Many will fail to agree with me in placing such a small amount of importance on what they perhaps consider most essential, but experience has taught me that three months in the surgical laboratory will make a very clever technical manipulator from a young inexperienced girl who has the power of keen observation and is clever with her fingers; yet who would dare to assert that this individual is a surgeon! However, though

I rate it below surgical diagnosis and surgical pathology, I would place an emphasis on certain phases of surgical technique far greater than is usually done. Surely no individual not possessing a delicate sense of touch should attempt surgery. Repeatedly, in the process of training students, one observes failure on the part of one student and success on the part of another, even though both apparently went through the same maneuvers, the failure of the one being due solely to an intrinsic lack of delicacy of touch. This element is difficult to pick out in various individuals, but no one should contemplate entering surgery without questioning himself as to this ability.

Surgical aftercare or the lack of it is frequently the cause of the failure or success of any surgical procedure. It is folly to expect good results following upper abdominal surgery unless the proper dietetic and medicinal control is exercised over a period of months. The immediate care is also essential, for I have observed the occurrence of fatal shock following the inadvertent permission to use a bed-pan in the sitting posture two days after operation. Likewise I have seen patients die from acute dilatation of the stomach which went unrecognized until too late for its relief.

The final essential, surgical judgment, is a "will-o-wisp" sort of thing which comes only with experience and frequently when it seems to be within the grasp it has flown. It involves all the other factors; pre-operatively it demands that the surgeon estimate the relation between the extent of the patient's pathological condition and his general physical state in determining how extensive an operative measure can be advised. Likewise it demands that he correlate the extent of the disease with his operative measures in forming a true opinion of the relief which the patient may reasonably expect. Unless the expected degree of relief and the probable increased length of life more than balance the anticipated risk the surgeon should be cautious in advising surgical interference unless the situation is presented honestly to the patient. At operation it demands that he perform the maneuver involving the least risk in order to cure his patient. This demands past experience, and a knowledge of anatomy, pathology, and pathological physiology, all of

which can be obtained only through prolonged effort. After operation obstructive complications demand fineness of judgment and often tax the skill of the best equipped. To do or not to do usually is the question and commonly a life is in the balance. The necessary experience can only be gained in one of two ways; either, as an individual, rushing ahead and learning through repeated failure; or through long years of training as an assistant and associate of those who have learned. The first method is so fraught with disaster for the patient that the public is certain in the near future to insist on the second method, unless we, as surgeons, recognize the situation and require an adequate training as an essential for surgical practice.

In conclusion, I have endeavored to show that the essentials of good surgical practice are dependent upon the proper valuation of several factors; namely, diagnosis, pathology, technique, and aftercare, inseparable and interwoven with which is the great fundamental, judgment, which only comes through training and experience.

DISCUSSION ON PAPER OF DR. CHANEY

Dr. Arthur D. Little, Thomasville: The members of our Association should be, and I am sure they are, deeply appreciative of so excellent a paper as has been read by Dr. Chaney, and I hope that after I have broken the ice there will be a wide discussion. However, there are just certain things to be said on the subject and Dr. Chaney has said most of them, so that an elaboration is about all that is left for us.

I would add what I think is an essential in saying that I believe a surgeon should have at least five years in general practice before he attempts to specialize, for nothing else will teach him so well to properly evaluate signs and symptoms, and teach him more thoroughly the importance of self-reliance and initiative. If you want to put a surgeon to a real test, give him a patient far removed from modern facilities, no x-ray or pathological laboratories, and watch him make a diagnosis and operate. If he is a really good surgeon he will wish for laboratory confirmation, he will wish for a modern sterilizing plant, an up-to-date operating table, and three or four trained nurses, but he will be able to forego all of these, will not have to modify his pre-operative diagnosis very much, and

the patient will do pretty well. Just here I wish to state that the hardest problem in surgery is the one when your clinical data will not check with the laboratory findings, and many times we have been sorry we stopped to fool with the laboratory, while at other times we have been deeply grateful to receive invaluable aid.

This is a splendid opportunity to call attention to another essential which is so grossly overlooked by many good surgeons. That is, rough handling of tissues. Just because a patient is asleep is no reason why he cannot be hurt, for no surgeon can insult and assault tissues without detriment to his patient. For this reason, if for no other, every surgeon should do some work under local anesthesia, as 90 per cent of the success of the operation, so far as the patient allowing you to proceed is concerned, will be due to gentle handling of the tissues.

Team-work is another essential for doing good surgery, for while a good surgeon can do good surgery under adverse conditions, yet it is a strain on his nervous system, while under ideal conditions he is at ease, and his nerve reserve is left for some unforeseen complication which may tax all his ingenuity and nerve. Nothing makes operating so easy as to have assistants who know your methods and little idiosyncrasies. You will be less tired after half a dozen operations with your regular assistants than after one operation under opposite conditions.

As to the point of technique, I quite agree with Dr. Chaney that it is easy for certain people to acquire technique while it is almost impossible for others, and I believe his percentage rating is just about right. Just as the sense of technique is inherent, I think possibly surgical judgment also is, basing this statement on the fact that many men who know pathology and are good technicians seem not to be able to know where to stop, or to determine just when and when not to operate.

I also agree with Dr. Chaney that correct diagnosis is essential. A large percentage of cases present few difficulties, but it is the difficult cases we are most concerned about. It is here that we need our thoroughly equipped hospitals and our internist, for these patients have a right to demand the best and if we fail to give them the best we fall short of our duty, and at the same time encourage the chiropractors, the nostrum dealers and other fakirs.

Dr. Julian K. Quattlebaum, Savannah: I think all will agree that Dr. Chaney has, indeed, named the essentials of good surgical practice. However some may differ with him

in the relative importance he gives to each. Whereas he gives 50% of success to surgical diagnosis and only 15% to technique, no less an authority than Sir Berkely Moynihan lays great stress upon the care with which technical details must be carried out.

To my mind surgical pathology, or rather a knowledge of it, is the greatest essential, for no matter what the diagnosis, nor how careful the technique or after care, unless the causative pathological lesion is recognized and correctly dealt with the patient will not be cured. We all know how often our pre-operative impression, most carefully arrived at, is found to be incorrect when the abdomen is opened or additional pathology discovered. We, at times, operate most confidently for, say duodenal ulcer, for example, and find that organ normal, the cause of the trouble being in the appendix, gall-bladder or elsewhere. How many times has gastro-enterostomy been done presumably for ulcer, a flake of plastic lymph on the stomach or duodenum mistaken for the ulcer itself, when in reality the disease was in the gall-bladder just by it.

Then, too, I think after-care should be given a larger percentage than 10, for often a patient hangs in the balance for days only to be pulled through by judicious care.

Most important also is "pre-operative preparation" and I would like to add it as another essential. A patient often goes through an operation of magnitude in safety that would surely have proved fatal had not such pre-operative measures as blood transfusion, injections of various solutions, the salts of calcium and sodium, glucose, and measures to reduce high blood pressure, proper diet, been made use of.

I do not mean to belittle pre-operative diagnosis and think we should make every effort to arrive at a correct impression, but it is our post-operative diagnosis that we want to be certain is correct.

Surgical judgment is important and hardest to acquire. Some men seem to have a natural intuition which influences their results and they are often called lucky. However, judgment is often learned through experience, much of which has been bitter and unfortunate for the patient. In this connection I think it is well for us to remember that our patients come to us living and if it is their chief concern that they leave us the same way, and it should be ours also. We must bear in mind that an operation beyond the patient's endurance, no matter how brilliantly performed will not compensate for the life lost. It is often better to do two operations of little risk for a condition that would be hazardous if done in one.

We should constantly strive to improve ourselves and I know of no better way to begin than to take home with us these essentials that Dr. Chaney has mentioned, study them and check up our short-comings in each.

Dr. Ralph H. Chaney, Augusta (closing): I agree with Dr. Quattlebaum on the question of pre- and post-operative care. There is no question but that many patients will be saved by proper pre-operative supervision.

I did not place the question of surgical judgment on a percentage basis, for I think it cannot be evaluated. This was impressed upon me over-seas. I was in training school for service. During three months we received 127 surgeons trained in civil life, and out of those we sent 111 back as unfit because they did not have that one essential of knowing how far they could go and where they had to stop in severe traumatic surgery.

GALL BLADDER SURGERY WITH REFERENCE TO THE UNRELIEVED CASE*

R. M. HARBIN, M.D.
Rome

Throughout the entire digestive tract there are two zones conspicuous for stasis: one is the caput coli and appendix and the other is the gall bladder and in the presence of dietetic affronts in the latter plus remote foci of infection we have conditions favorable for the development of certain well known types of pathology still further favored by the presence of organs more or less vestigial in character and for that reason more vulnerable to infection. It may be remarked that the appendix through a process of fibrosis becomes more resistant to infection as age increases while the reverse is true of the gall bladder because of collateral conditions. As a matter of curious interest we have undertaken a review of 2472 laparotomies for disease and we find that 61% concern the appendix which gives directly 41% of total deaths, while 5.2% of operations deal with the gall bladder which contributes its share of 7.2% of all deaths. So in round numbers 66% of abdominal surgery has to deal with infected vestigial organs which furnish 48% of all deaths and similarly we have noted that the tonsils occupy 68% of the surgical activities for the

*Read before the Medical Association of Georgia, Albany, Ga., May 13, 1926.

cavities of the head. We thus see in a general way the role of vestigial organs in surgery.

The liver being the great incinerator is liable to engorgement from overeating and obesity evils of which increase with age and thus create stagnant areas for the development of toxemias primarily and infections secondarily. In the light of recent scientific studies we are now finding reason to hark back to the days of theory of torpid liver, biliousness, engorged portal circulation, etc., as being mild transient forms of varying degrees of cholecystitis, cholangitis, pericholangitis or hepatitis which sooner or later become the scene of action of a vicious circle of pathological conditions in the upper right abdomen. So it is rational to believe that cholecystitis in some cases may be a secondary result from disturbed liver function through infected bile or lymphatic involvement. Graham (Archiv. Surgery 1921-11-92) has produced cholecystitis by injecting cultures of *B. coli* and streptococci hemolyticus in the gall bladder after tying off the cystic artery and lymphatic trunks and showed the presence of such infection in the liver.

Added to these conditions the element of back pressure resulting from mechanical obstruction of bile passage to the duodenum tends to intensify certain infective processes. While the much maligned gall bladder has lost its function as an organ for storage may it not be true that it still has the function of acting as a shock absorber during active digestion for back pressure in the bile ducts? The post-operative pain after a cholecystectomy pending a compensatory dilatation of the common duct at times is sufficient even in the absence of any degree of activity of digestion to force open the ligated cystic duct. It has been noted that the gall bladder was distended in 61% of cases of painless obstructive jaundice (Elkin, Southern Medical Journal, Sept., 1924, p. 692), which goes to show the conservative function of the gall bladder. We have analogous conditions of infective processes in the kidneys from back pressure brought about by prostatic obstruction. In addition to these mechanical phases the gall bladder is believed to correlate the

secretory activities of the liver with those of the gastro intestinal tract (J. A. Med. Asso., 1924, LXXXIII, p. 829). While experimental evidence according to Mann seems to suggest the possibility of the gall bladder working over, so to speak, bile for absorption through the lymphatics, such an assumption yet offers no practical benefit.

So we can readily perceive that though not accepted as such at the time that the etiological factors of cholecystitis, cholangitis and hepatitis are primarily of long duration and complex in their interaction and that "the liver, pancreas, gall bladder and gastro-duodenal region must be viewed as one physiological and pathological system, disease of one organ expressing itself in varying degrees of pathological change in the other members of the group" (Heyd-Surg. Gyn. & Obs., July, 1924, p. 66). McCarty (Minn. Medicine, 4-377, 1921) reported that sections of the liver at operation, hepatitis coexisted in the same degree with cholecystitis. It has been proved that bacteria may pass from the portal circulation into the bile (Flutterer-Berlin-Klin. Wehnschr, 36-58, 1899) and on the other hand changes in the liver follow the presence of a cholecystitis (Graham Arch. of Surg., 4-23, 1922). Furthermore it is more than probable that every type of infection throughout the range of pathological conditions within the peritoneal cavity more or less affect the liver through the various tributaries of the portal system. Low grades of hepatitis with more or less frequent periods of exacerbation are remarkable for their chronicity and would not materially shorten the length of life but for the fact of hastening certain degenerative processes incident to old age, plus certain foci of infection. It is conceivable that a disturbed liver function is more or less a predisposing factor for every type of degenerative process after middle life. The mere removal of a gall bladder becomes one step towards a cure and after middle life it is unreasonable to expect entire relief of symptoms from certain collateral pathological conditions unless the original causes have been eliminated and it is no small difficulty to determine which pathology is primary. From reconstructed hygiene, medical and dietetic measures should be brought to bear towards lessening the load

on the portal circulation and an increase of fluids to promote less viscosity of bile and consequently better natural drainage. Wilensky and Rothschild have called attention to the importance of hypercholesteremia as a cause of post-operative symptoms and diet rich in fats and lipoids should be eliminated (*Am. J. Med. Sc.*, 168:66, July, 1924). From the standpoint of medical treatment the problem of gall bladder disease is closely allied to that of obesity.

From this brief review of the gall bladder complex it becomes easy to understand the incidence of the unrelieved case and surgery must revise a prevalent conception that gall bladder disease is an unassociated pathological entity. Let us hope that research in the blood chemistry tests of liver function and gastroduodenal analysis may give us sufficient data to enable us to avoid useless early operation and safeguard late operative procedure becoming handicapped by certain pathological sequelæ.

It has been observed that the liver eliminates certain dyes from the blood stream and any degree of liver disease will show a corresponding delay of elimination of such dyes. In a small series of normal cases according to the Rosenthal method of dye injection for test of liver function, the blood plasma was free from dye in two hours and in seven cases of chronic cholecystitis there was a marked dysfunction of the liver by the "tetrachlor" method. The same observation was noted in jaundice and in marked cases of dysfunction there was present bile in the urine (Piersol & Backus, *Journal A. M. A.*, Oct. 4, '24, p. 1043). "Secretion in the stomach is practically always substandard in cholelithiasis: in some cases achylia seems to precede the gall stone disturbances. The hemoclastic crisis affords valuable information as to the functional capacity of the liver and the peptone reflex throws light on conditions of the gall bladder." (Landgraf, *Beitrage, Zur Klinischen Chirurgie Tubingen* 132, 1924, p. 597.)

Surgery comes to the rescue at the climax of these pathological activities by interrupting for the time being at least certain dangerous phases of the vicious circle. But notwithstanding temporary relief, collateral

pathological conditions persist which not being amenable to surgery may require to be treated more or less effectively by medical measures for there frequently arises a wide variety of general and remote diseased conditions that inhibit improvement from the gall bladder complex. Removing the gall bladder does not always end the so-called gall bladder colic, persistence of which seeming to proceed from causes within the biliary system independent at times of conditions about the common duct and papilla of Vater. This statement seems to have been verified by findings in one of our unrelieved cases submitted to secondary operation. We have occasion at times to operate on the diagnosis of gall bladder without demonstrable evidences of obstruction either of the cystic or common duct and the source of pain must be referred to other causes already mentioned.

According to Pottenger (*Surg. Gyn. & Obs.* Jan., 1925, p. 62) the nerve supply of the stomach, gall bladder, liver and pancreas is entirely of the sympathetic system radiating from the six lower thoracic segments of the spinal cord and diseased conditions of these organs reflect pain to the superficial structures of the right abdomen and subscapular region through the efferent supply. So we can readily see that a common type of pain could proceed from a diseased condition of any one of the organs mentioned, the amount and character of the pain being still further modified by variations of nerve temperament, types of pathological complex along with food idiosyncrasies. However, the more common type of pain usually proceeds from gall bladder colic but when accompanied by severe symptoms of infection it is more likely that the pain proceeds from a cholangitis which latter condition is often observed subsequent to removal of the gall bladder.

So the problem of treatment of the gall bladder complex is first medical, then surgical and again medical and when a cholecystectomy patient is dismissed by telling him to eat and do anything he wishes he may especially after middle life become an unrelieved case.

Surprisingly as it may seem a low mortality rate from gall bladder surgery may be followed by a high remote morbidity rate and

vice versa, because the gall bladder may be an incident or minor link in the chain of pathologies. On the other hand a grossly diseased gall bladder may incur a higher mortality rate but if the patient recovers he will likely be relieved by symptoms as indicated by table of statistics. Because of a low mortality rate the high morbidity phase of the question has suffered neglect on the part of surgeons which goes back to the question of operative diagnosis. So hasty operations have their morbidity hazards because the source of trouble has not been reached while in late operations resultant pathological conditions have extended beyond the reach of surgery for certain forms of cholangitis, hepatitis and pancreatitis are not readily amenable to operative diagnosis. Blalock concludes (*Journal A. M. A.*, Dec. 27, 1924), that the incidence of the unimproved case may be placed at 6% distributed about equally between cholecystostomy and cholecystectomy and that the cured and improved classes hold about the same proportion. This observation is very significant when we consider the difference of degrees of pathology to be dealt with.

Emphasizing the necessity of a co-ordinated study by the internist and surgeon the effort of this discussion is to state the problem of the late case, complex as it may be, in order to urge that the internist recognize hazards, strive to thwart impending pathological developments and that by the assistance of the surgeon make a prompt diagnosis for the earlier application of operative treatment before the development of a vicious circle of pathological conditions which cannot be corrected by surgery alone. The crux of the whole question of the unrelieved case devolves on co-ordinated diagnosis for earlier operative treatment. Much fruitless discussion of the relative merits of drainage and removal of the gall bladder has been made in the attempt to explain the unrelieved case, causes of which having proceeded not from the type of operation but from secondary or collateral pathology. Post-operative adhesions have been accused but to no purpose for it is not sufficient to say after a secondary operation that a recurrence of adhesions explains the failure of relief of the patient. Of course, it is understood that evidences of reappearance of

gall stones warrants secondary operation but a considerable number of unrelieved cases does not fall into this class.

In determining when a case presenting the so-called gall bladder syndrome should be submitted to surgery requires no small amount of clinical judgment on the part of both internist and surgeon and cannot as yet be reduced to any set of rules and each case requires to be dealt with on its own merits there being an element of error in prognosis to be reckoned for and against surgical treatment because the gall bladder may display great activity of symptoms which occasionally may be followed by indefinite periods of remission. We have recently had a fatal case of acute cholecystitis with jaundice where palliative measures were brought to bear hoping the acuteness would wear away for interval operation only to be forced into operation which showed a ruptured gall bladder of four days standing partially protected.

The history of repeated attacks of jaundice and especially those of advanced age would indicate the existence of more or less resultant changes in the liver. Pain is usually the predominant reason on the part of the patient for surgical intervention with a history of typical attacks of acute cholecystitis. Yet not infrequently some of these cases become ultimately symptomless. We have under observation a man of this type without jaundice who had his last violent attack four years ago and a gall stone the size of a small hickory nut was at that time positively demonstrated by the x-ray.

We must further recognize that a needless cholecystectomy especially in the obese and aged is not without certain dangers. Fortunately this is not true of an appendectomy through error in diagnosis. Haggard says (*Ohio Med. J.*, 1924, XX-613). "It is unwise to remove a gall bladder that is not definitely diseased and still worse to drain it." Because of mechanical conditions the painfulness of the attack of gall bladder colic does not indicate the gravity of the infective processes and on the other hand advanced pathology may furnish indefinite symptoms. Insofar as the development of classical symptoms is awaited before operation the percentage of unrelieved post-operative cases will

proportionately increase. The progress of surgery in the light of preventive medicine must require an earlier diagnosis at a time before it seems practicable to make one because surgical treatment cannot cure consequent pathological conditions beyond the field of operative procedure which at present is limited ordinarily to the removal of the gall bladder and the time honored treatment for bile drainage. We believe that operative technic should meet the necessity of bile drainage in certain cases oftener than has heretofore been advised. A recent report (Blalock, *Journal A. M. A.*, Dec. 27, 1924, p. 2058), states that 38% of cholecystectomies drained bile unintentionally through back pressure in opening the ligated cystic duct. This observation would seem to be an important signal to the surgeon. The indications for bile drainage would seem in operative cases to be a long history of infection especially after middle life with hypertension, obesity, pancreatitis with infective glycosuria, history of jaundice indicating cholangitis, peri-cholangitis and hepatitis, etc. Heyd admits (*Surg. Clinics of N. America*, 1923, III, p. 373), that cases of long standing hepatitis and cholangitis get little or no benefit from any type of operation. Inasmuch as the unrelieved case proceeds from either neglect of medical treatment, non-operation or ill advised operation we would summarize indications for surgical treatment as follows:

1. Operate early in severe attacks in the young.
2. Operate even later in acute cases where there are signs of rupture or peritonitis with empyema with high temperatures and in jaundiced cases persisting after eight days.
3. Operate in protracted cases showing gall bladder dyspepsia after a fair trial of medical measures.

Contra-indications:

1. Definite cases where prolonged medical treatment may offer recovery or latency of symptoms the patient choosing morbidity instead of operation.
2. Border line conditions where the patient elects palliative measures and takes the risk of certain hazards.

3. Old age or obesity complicated by arterio-sclerosis, diabetes, heart disease and evidences of collateral pathology such as chronic hepatitis, pancreatitis, etc.

There are two types of drainage for bile, externally through the gall bladder and internally by an anastomosis of the gall bladder with some portion of stomach or upper intestines. Deaver (*Annals of Surgery*, April, 1925, p. 762), advises internal drainage in selected cases in older patients having more or less evidences of collateral pathology, where the cystic duct is patulous with healthy musculature and sufficiently pendulous for an anastomosis. While it has been stated that the gall bladder once diseased remains so, we have noted complete absence of symptoms in two cases of drainage for rupture. A pertinent query arises, may not concomitant disease explain the failure of relief rather than the presence of a diseased gall bladder after having been relieved of tension and stones?

From a theoretical standpoint there has been a golden opportunity for operative cure of all surgical diseases within the abdomen if a correct diagnosis had been possible. So the problem of prognosis is one of early diagnosis of the primary or the major pathology which is amenable to surgical treatment before certain entailing consequences ensue. Without any attempt at a statistical study we have selected at random from our records of diagnosis and operations a sufficient number of cases to reflect a comparison of results which have only a suggestive value because of the limited number of cases reviewed. In the first place we have taken twenty-five diagnosed cases who have not submitted to operation and in the follow-up report of replies which averaged a period of three years since last observation; average age was 41 years, females 56% and average duration of symptoms six years. Expressed in percentages, 19% were positively advised to have operation, not one of which reported improvement and 81% conditionally; 50% were improved and 50% unimproved and one death was reported from stomach complications one year after examination. From a series of 143 operations on the gall bladder and bile ducts (mortality rate 4.8%) we have selected for a

follow-up report 25 cholecystectomies and 25 cholecystostomies going as far back in our records as practicable in order to determine final results (see table I).

In classifying results more or less arbitrary use of terms is necessary at the same time defining such terms. We have classified these cases as cured, improved and unimproved, interpreting the patients' statements as to digestive symptoms. These with occasional digestive disturbances have been classified as "improved" while those with more constant symptoms have been referred to as "unimproved" yet all of the latter class having been relieved of the acuteness of suffering not one expressing regret for operation. Some after a period of a year expressed themselves as cured while a few felt cured for three or four years, only to experience recurrence of symptoms. In making a comparison the degree of pathology requires to be reckoned arbitrarily as 1, 2, and 3, in the table.

Our earlier records, of course, showed a greater per cent of drainage cases because of a more advanced stage of disease. Three of these were cases of empyema of the gall bladder; one reported cure, another cured for three years and after three childbirths and the development of obesity, attacks of colic recurred and another case had secondary operation which will be reported. One jaundiced case of common duct stone with atrophied gall bladder reports six years later a cure. Two male cases of ruptured gall bladder report cures after three years.

The incidence of age, sex, time elapsed since operation, presence of gall stones and average duration of previous symptoms are shown in table No. 1. When we consider the advanced stage of pathology it is a bit remarkable that the percentage of cures is about the same in the two classes of operation while the unimproved is 31% in cholecystectomies and 15% in cholecystostomies. We believe that variations of different morbidity statistics depend more on the interpretation of symptoms given in follow-up reports than on the actual facts of the case.

These observations are rather striking but not wholly at variance with other statistics and it is our final conclusion that gall bladder

drainage should be practiced oftener than accepted teachings in surgery have heretofore advised. We believe that the percentage of unimproved cases could have been greatly lessened had an intelligent medical and hygienic regime been applied and our hopes for betterment of final results must depend in the future not so much on the type of operation as earlier surgical treatment and more careful medical supervision.

We have had only four cases submitted to secondary operation and the findings and results in these have been more or less negative. Case 2495. Multipara, age 47, suffered the characteristic gall bladder colics for fifteen years, having had jaundice twenty years before. She was submitted to cholecystectomy May 10, 1921, which revealed a distended gall bladder with stones. The head of the pancreas was markedly enlarged and indurated and carcinoma was suspected. Bile drainage developed spontaneously and persisted and she was given x-ray treatments. After closure of sinus she had recurring attacks of jaundice colic with chills and fever.

After consulting various medical men she returned for secondary operation three years later with probably diagnosis of stone in common duct. Adhesions were not undue and palpation of the pancreas was negative. The liver was mottled and the common duct flaccid which was incised and drained but no bile ever discharged. The attacks of colic fever and jaundice persisted for six months at which she died in another state. Probable diagnosis was hepatitis, cholangitis with hepatic stones and pancreatitis. The initial stage of these conditions dates back perhaps to an attack of jaundice twenty years previous.

Case 2790. Stout multipara, age 48, suffered distress in the gall bladder region for fourteen years. On August 3, 1921, a diseased gall bladder was removed, there being no objective evidences of collateral disease. Convalescence was normal. One year later pains were radiating posteriorly with soreness and skin brownish. Having urinary disturbances, ureters were catheterized which gave relief. Two years after operation barium meal indicated angulation of duodenum but other-

wise negative. The same appearances were noted at a subsequent barium meal after the use of atropin. At this time she was given radium treatment for uterine hemorrhage from a submucous fibroid. Three years after the original operation, the abdomen was again opened and revealed extensive adhesions and a kinked duodenum at site of cystic duct. All other findings negative. Six months later she reported no improvement, having a systolic blood pressure of 200 and diastolic 120.

Case 3108. Nullipara, age 39, had gall bladder drained one year previously for empyema with stones. Sinus persisted and was re-operated for removal of stone and gall bladder. Unimprovement persists probably due to poverty, domestic cares and improper food.

Case 3975. Multipara, age 33, had gall bladder drained in 1917 and four years later she returned for cystoscopic examination having become a morphine habitue and in 1923 was re-operated for removal of gall bladder which was found to have practically disappeared from atrophy. Last report from her was unimprovement—comments negative.

TABLE I

FOLLOW-UP RECORD OF 75 CASES OF GALL BLADDER DISEASE

SELECTED FROM A SERIES OF 143 GALL BLADDER OPERATIONS WITH A DEATH RATE OF 4.8%

25 Cases of each class	Not Operated (25)	Cholecys- tectomy (25)	Cholecys- tostomy (25)
Degree of Pathology (Arbitrary)	1	2	3
Average age	41	41	46
Females	56%	70%	73%
Average of years since diag- nosis or operation	3	5	6
Average of years of previous symptoms	6	7	8
Improved (Slight symptoms)	50%	5%	21%
Inimproved and frequent re- currence of symptoms	50%	31%	15%
Cured		63%	63%

Incidence of gall stones	36%	42%
Subsequent Deaths	1	1
Stomach, Liver		

Conclusions:

1. Throughout the digestive tract there are certain zones conspicuous for stasis such as the appendix and gall bladder which being more or less vestigial in character furnish conditions favorable for the development of infection.
2. Our statistics show that the gall bladder and appendix furnish occasion for 66% of all laparatomies for disease and inflict 48% of all post-operative deaths from abdominal disease.
3. The liver being the great incinerator is liable to overtax and in the presence of age, dietetic affronts and foci of infection, ill defined symptoms of long standing probably have their origin in unrecognized and transient forms of cholecystitis, pericholangitis and hepatitis.
4. The liver pancreas and gall bladder belong to a physiological system in which certain infective processes are reciprocal in character and symptoms of one becoming more or less common to all.
5. When the gall bladder loses its function as a shock absorber for back pressure in the bile ducts infective processes become accelerated.
6. Dysfunction of the liver is a predisposing factor that favors the development not only of contiguous disease but certain general abnormal conditions especially in the aged.
7. The tests of liver function by the rate of elimination of certain dyes injected in the blood stream bid fair to make indications for surgical intervention more definite.
8. Early removal of the gall bladder offers a cure only where it has been the major primary link in the chain of pathological conditions.
9. In the addition to the selection of a proper type of operation we must look to pre-operative and post-operative intelligent medical care for a reduction of the percentages of unrelieved cases.
10. Post-operative medical treatment should eliminate diets rich in fats and lipoids

and the problem of obesity is closely allied to that of gall bladder disease.

11. While for obvious reasons sustaining a greater mortality, recovery for cholecystostomy gains as great a number of cures and ultimately a lower morbidity rate than cholecystectomy and we believe bile drainage was a determining factor.
12. The crux of the whole question of gall bladder surgery is not so much the type of operation as the menace of unnecessary operation on the one hand and the late surgical procedure for disease that has extended beyond reach of surgery, on the other hand.
13. The so-called symptoms of gall-bladder colic may recur after a cholecystectomy.
14. Indications for operation are for early severe attacks, signs of rupture, peritonitis, empyema, jaundice after eight days and protracted cases after giving medical treatment a fair trial.
15. Contra-indications obtain where prolonged medical treatment may offer recovery or latency of symptoms where patients elect certain hazards, old age, obesity, cardio-renal disease, diabetes, chronic hepatitis, pancreatitis, etc.
16. In a follow-up record after three years of cases of the gall-bladder syndrome not submitted to operation no cures were reported, 50% unimproved, 50% improved and 4% dead.
17. From a series of 143 operations on the gall-bladder and bile ducts (mortality rates 4.8%) in which a follow-up for comparison of 25 cholecystostomies and 25 cholecystectomies there was the same percentages of cures. More or less constant symptoms were noted two to one in cholecystectomy while the reverse proportion was true as to occasional symptoms in cholecystostomy.
18. Four cases submitted to secondary operation were negative as to findings and relief of symptoms.
19. Clinical cures may be followed after two or three years by recurrence of symptoms and on the other hand unrelieved cases may after the same period of time finally reach a stage of apparent cure.

DISCUSSION ON PAPER OF DR. HARBIN

Dr. William H. Goodrich, Augusta: Someone has already said the object of discussing a paper is to elaborate, or amplify what has been said by the essayist, or possibly to interpolate something which has been omitted. I want to thank the delegate from Florida who told us about Dr. Bunce and his servant, John. Several weeks ago I received a letter from Dr. Bunce asking me to discuss the paper of Dr. Harbin, saying that I would receive a copy of the paper so that I could prepare my discussion. I am still in the position of John—Dr. Bunce is "mounted."

Our understanding until recently was that gall-bladder infection was only in connection with gall-stones. Accepting the present-day belief of blood-stream infection of the gall-bladder wall puts us in a quite different position. We also know now that quite frequently where a diagnosis of gall-bladder disease, or gall-stones, has been made, an involvement of the pancreas, liver and regional lymph nodes has already occurred. To my mind this is one of the chief explanations of recurrence of symptoms after the gall-bladder has been removed.

As I see it there are probably three explanations for recurrence of symptoms after removal of the organ. In the first place, the most common trouble following removal of the gall-bladder is due to an over-looked stone. Even careful probing of the ducts after opening the common duct is not always sufficient for us to be absolutely sure that all stones have been removed. This is not alone my experience, but that of the best surgeons throughout the country. It may be that there has been a rapid reformation of the stone, but this is unlikely. There is also the possibility, that stones in the hepatic duct move down following the operation.

The second condition which is probably responsible for recurrence of symptoms lies in the fact that we may assume that in gall-bladder conditions there is frequently a pan-infection, with infection of the liver, pancreas and regional lymph nodes. We cannot hope by removal of the gall-bladder in these cases to remove the secondary conditions which have already occurred.

Third, we may have following operation, stricture of the common duct. This is due in the main to some failure in technic. We know that stones in the common duct not infrequently lacerate or break through, but if these stones are removed stricture does not occur. The potency of the duct is maintained. If we do not visualize the structures we are removing it is very easy, in controlling hemorrhage

from the cystic artery, to bite away a piece of the duet and stricture of the duet results.

Another thing which is quite common, and something which I think surgeons are recognizing more and more, is the necessity of using less drainage. Formerly when the gall-bladder was removed, as a rule, a large rubber drainage tube, with possibly a Mikulioz, was placed near the stump of the gall-bladder, and following the removal of this a gradual contraction of the tissues compressed the common duet and stricture resulted.

Dr. Ralph H. Chaney, Augusta: There is one point in unrelieved gall-bladder cases that I think some recent work may throw light on. Sweet, in a recent paper before the Aeademy at Richmond, has shown that he is able, in a test-tube, to manufacture gall-stones that cannot be told from those in the human being. Our old idea was that gall-stones were started around some nebulous material, probably some bacteria. Sweet has shown by taking a glass shell and filling it with eholesterin, heating it and then suddenly ehilling it, he can produce a gall-stone that cannot be distinguished from that found in the human being. This may mean that in many cases in which eholecystostomy has been done and recurrence takes place the stones have reformed very rapidly. I had the pleasure of attempting to pick the true from artifical, and my baiting average was 60-40. I called 60 per cent of the artifical natural. This happened with many of the best surgeons in the United States, and it may be that many of the unrelieved gall-bladder cases are due to the rapid reformation of stones. Cameron has shown that in clinical cases within three to four weeks time there can be development of stones 0.5 to 1 cm. in diameter following eholecystostomy.

There is another piece of work going on tending to show that any material that enters the gall-bladder never leaves it by way of the cystic duet.

There is another case reported in which the gall-bladder was shown by the tetraehlorid-iodin method, in which successive visualizations with a clear shadow showed diminution of the dye in regular order, and at operation the common duet was found absolutely closed to a single stone that blocked the common duet, and under pressure which ruptured the gall-bladder, no bile passed out through the cystic duet.

Dr. George M. Niles, Atlanta: It has been very refreshing to compare the general attitude of the surgeon now and a few years ago. I can remember the time, not many

years ago, when it was almost taken for granted that any patient presenting gall-bladder conditions was a proper patient for surgery. Dr. Davis' remarks a little while ago were most timely, and I am sure we appreciate the very conservative note Dr. Harbin gave us in his paper. I can remember some surgeons whose attitude toward the gall-bladder was such that they would not even think of surgical drainage, but took it out, without any hesitancy. It was like that Scriptural teaching, "Cut it down: why eumbereth it the ground?" Some of the eases were unrelieved—they were bound to be. I do not wish to antieipate the remarks which I purpose to make tomorrow morning, but I do realize that there is a more conservative attitude toward the gall-bladder now than formerly, and I feel safe in predicting that as time goes on, actual surgical attacks on the gall-bladder will become fewer and fewer. Then the condition of the gall-bladder, and the allied eonditions which point to the gall-bladder, will become better recognized and better treated.

Dr. R. M. Harbin, Rome (closing): What I wished in this partieular diseussion was not so much to discuss the details of the gall-bladder syndrome, but more to emphasize the importance of having the patient who has been deemed fit for surgical removal of the gall-bladder turned back to the internist following operation. I believe if these patients were properly treated ten years before they reach a surgical stage they would not require operation.

I do not feel like raising a question with Dr. Niles, for it is not surgery versus medicine, but surgery and medicine.

LIMITED SPINAL ANESTHESIA

Excerpts from "Foreign Letters"—J. A. M. A. December 18, 1926—page 2106.

According to a method recently devised by Doctor Ravaut, physician to the hospitals of Paris, for slight surgical operations limited to the perineum, anesthesia strictly limited to the region concerned can be induced. The author's procedure consists in introducing within the spinal canal, by the ordinary technic, two drops of a 50 percent colution of Novocain (procaine hydrochloride), which is very viscous and which, the patient being seated, falls at once by its own weight to the base of the tubular sheath and limits its action without affecting the nerve roots or the cord. The anesthesia lasts for an hour and a half. The small quantity of procaine hydrochloride does not cause any unfavorable reaction on the general condition of the patient.

CLINICAL RESULTS ATTAINED IN FIVE THOUSAND NON-SURGICAL GALL-TRACT DRAINAGES*

GEORGE M. NILES, M.D.

Atlanta

In this presentation of clinical results, the writer will endeavor to conservatively state the experiences and observations arising from the assiduous pursuit of this procedure. During six and a half years 411 patients were considered as favorable subjects for non-surgical drainage, and the method was employed as will be briefly detailed.

Of the 411 patients, 16 had only one or two drainages, and should not be considered. Of the 395 in which three or more drainages were given, 264 were treated for a probable cholecystitis or choledochitis (separate or combined). These patients had "muddy" or slightly jaundiced complexions, complained of gaseous eructations, bad taste, and fickle appetite. Nearly all were constipated and nearly all had some tenderness over the right hypochondrium—in other words, they suffered from that loose but expressive term "biliousness," a much abused term, but one which carries its own meaning. The majority of these patients gave a history of malaria or influenza, many of them had bad teeth or tonsils or accessory sinuses, and not one admitted good digestion.

Thirty patients gave a history of one or more attacks of severe colic. In five, gall-stone shadows were demonstrated. In 25 a tentative, but probably correct, diagnosis of cholelithiasis was made.

Eighteen cases of bronchial asthma are included in this series, every one of whom had previously undergone various and sundry forms of therapeutics.

There were 19 cases of chronic and severe migraine. Three of these were semi-invalids when first brought under observation and care.

Chronic infectious arthritis furnished 29 cases. Some of these sufferers also had lame backs and stiff muscles.

One case of sciatica was referred to the writer for non-surgical drainage. Though no hopeful claims were advanced, the patient got much better, and is still being treated by her home physician.

Twenty-one cases of jaundice in patients under forty-five were drained.

The remaining number, *thirteen*, were aged patients, in whom a tentative diagnosis of malignancy of the liver or pancreas, or both, was made and in which an unfavorable termination, with one exception, probably confirmed the diagnosis.

NUMBER OF DRAINAGES

The drainage varied in number from three to over sixty-five—the largest number being in migraine, bronchial asthma and arthritis. Some of these patients are still coming back for treatment, being fearful that with cessation of efforts to keep the gall-tract clean, they might lapse back into their former unhappy state.

FORMER SURGICAL OPERATIONS

Forty-one of the patients had previously undergone surgical gall-bladder drainage, and five had had the gall-bladders removed.

AGE AND PHYSICAL CONDITION

The ages ranged from 26 to 83. In some there were arterio-sclerosis, heart lesions, nephritis, or other complications, which would have made surgery inadvisable, even had it been desired.

RETURNS

Over half, after 3 or more initial drainages, returned for further treatment, at intervals, varying from six weeks to three years. Six came back after over four years. About 60 were lost sight of.

CLINICAL RESULTS

In the cases of cholecystitis and choledochitis, definite, and to the patients, satisfactory results were attained in sixty-five per cent; fairly good results in fifteen per cent; unsatisfactory results in five per cent; while about fifteen per cent could not be followed up.

In 3 of the 30 cases of probable gall-stones, there were a severe colic after the drainage, followed by a complete and permanent cessation of pain. In one, a large gall-stone was passed. Four of these colic cases were not

*Read before the Medical Association of Georgia, Albany, Ga., May 13, 1926.

helped, and were later operated on. Eight reported relief from pain for from one to three years. The others, with six exceptions, still report for drainages occasionally. Four of the bronchial asthma cases were not aided, but the others experienced marked relief. Four of these are still undergoing treatment occasionally.

All of the arthritis cases who could receive prolonged treatment, obtained a liberal measure of relief. The same may be said of the sufferers from migraine, for in no instance where quite a number of drainages could be administered has there been a complete failure.

All of the cases of catarrhal jaundice were relieved, except one; and in this a certain amount of bile was obtained, though to date the jaundice persists.

The aged patients, with probable malignancy, were accepted for treatment as a last resort, for surgery was absolutely contraindicated in all of them. But little bile was obtained, and results were nil.

CONCLUSIONS

In order to properly evaluate any procedure, the therapeutic use of such a procedure should presuppose: First, that the proper cases should be selected, and secondly, that the procedure should be carried out in a thorough and skillful manner. That neither of these conditions have been fulfilled in many instances has wrought much harm in the minds of both the medical and lay public. The writer will, therefore, endeavor to briefly describe a number of the conditions in which non-surgical drainage will probably afford either a mitigation of certain symptoms, or a cure of certain diseased states.

First: A chronic cholecystitis, or choledochitis, as indicated by flatulence, dyspepsia, a "muddy skin", lack of appetite, constipation, and malaria. Such a syndrome is known under the comprehensive term of "biliousness", which is used for the lack of a better word. Many of these patients have associated troubles, as chronic appendicitis, gastric or duodenal erosions, pericholecystic adhesions, etc., which gall-tract drainage can not cure; but that part of the pathologic picture depending upon a cholecystitis, or a choledo-

chitis, generally promptly yields to such treatment.

Second: Biliary stasis, with chronic infection of the gall-bladder following malaria, typhoid, influenza, or constipation, where such cases have gall-bladder infection, are proper cases for this procedure.

Third: Sick headache cases are either greatly aided or practically relieved by this method, though in cases of long standing many drainages will be required. To relieve one of these slaves to migraine, and to put such a person back into the channel of normal living and normal achievement—this alone would stamp non-surgical drainage as worth while.

Fourth: Some forms of asthma, where the sensitization tests have not worked out satisfactorily, or where it is probable that the cause of this asthma abides in an infected gall-tract, will give startlingly good results from this procedure. Most asthmatics are nearly desperate, and it can do no harm to try this, even though a certain percentage will yield no results.

Fifth: As an adjunct to other measures, it is quite useful in infectious joint troubles.

Sixth: Chronic catarrhal jaundice, where there is no material obstruction, such as a large stone in the common duct, or a hydrops, interfering. Many of these cases yield brilliant results, and in a few, the writer believes that the ejection of small gall-stones has been accomplished.

Seventh: Patients with gall-stones can be made much more comfortable by several drainages before having the stones removed. These patients will also find it helpful to have several drainages a few months after the operation. The writer has had a number of such cases, all of whom seemed appreciative of the comfort derived both before and after the operation.

Eighth: The writer believes that this procedure would be in order as a pre-operative measure in practically all of the operations upon the gall-tract.

Ninth: Patients who have had surgical gall-tract drainage without relief. The writer has a number of cases on record in whom surgical measures failed to give relief, but who seem

to have attained perfect health after a number of drainages by this method.

Tenth: Patients with gall-tract diseases, where surgery is indicated, but for various reasons is found inexpedient. Such cases can often obtain much amelioration of disagreeable or painful symptoms at no risk. The writer has had a number of aged individuals, with certain diseases, which entirely precluded surgery, though it would have been desired under favorable conditions, and in nearly every instance, gall-tract drainage has been found worth while.

The assumption that this method will remove gall-stones, will break up adhesions, will cure appendicitis, or cancer of the liver, or remove deep seated organic pathology of the gall-bladder and ducts, is ridiculous, and the patients should be plainly so informed. In a number of instances the writer has been placed in an embarrassing position by having referred to him, by enthusiastic protagonists, cases which non-surgical drainage could not hope to touch or benefit in any way.

Furthermore, in the opinion of the writer, no physician should use this method unless he goes into it wholeheartedly, performing it in a technically correct manner, and is willing to persevere in his efforts.

Finally, from a rather large experience, the writer advances this method as harmless, painless, entailing a minimum of inconvenience and expense, and advocates it as a valuable addition to the armamentarium of internal medicine.

DISCUSSION ON PAPER OF DR. NILES

Dr. W. R. Dancy, Savannah: I think Dr. Niles' paper is very timely in reference to our progress in the treatment of gall-duct affections. I am one of those who has been made a convert to this method of treatment. For several years I regarded it as a phantom treatment, like many of you, smiling, when anyone read a paper on gall-bladder drainage. I have used the method now for several years, with results far beyond my expectations. I do not claim, nor does Dr. Niles or anyone else claim that drainage will remove gall-stones, but some small ones occasionally come through. This is an age of anabolism and metabolism. In anabolism we are working always on the skin, the kidneys, the

intestines and lungs. Dr. Niles has demonstrated to us that in the cases with toxic symptoms, with aching of the joints and other things that are due to toxic symptoms gall-bladder drainage is effective.

One point he did not emphasize is that not only is the gall-bladder emptied but, to my mind, the liver is greatly stimulated by this drainage. The injection of magnesium sulphate drains off the bile from the gall-bladder, heavy and dark, and we have above that the supernatant bile that comes from the liver. If we free the gall-bladder of all the bile, naturally the liver cells expel bile, and if we relieve the liver of this bile we are thereby relieving toxic effects.

Dr. Niles touched upon a very good point when he said pre-operative preparation of gall-bladder cases by this method, in cases that must be operated, is very effective. The experience of the surgeon is that these patients stand operation and make a better and more rapid recovery than the ordinary patient does.

I think the objection to this method is that men using it do not take sufficient care in placing the tube. The patient should always be placed before the fluoroscope after placing the tube so that one can see just where the bulb is. You will not get results unless the bulb is within one-half inch of the ampulla of Vater. We must have the proper secretion of the liver, and must not lose sight of the fact that many of the patients have an achylia gastrica. Merely because you do not have an acidity in the fluid which comes from the tube, does not indicate that the bulb is in the intestine. The gastric contents may be alkaline.

Dr. W. W. Blackman, Atlanta: Biliary drainage is on the rise in this part of the country largely because it is so fortunate as to have a champion like Dr. Niles. Last year Lyon, in his paper upon biliary drainage before the American Medical Association, quoted Dr. Niles at considerable length.

Frequently quite astonishing results are obtained by this method. I am having such a result just now. A business man, aged thirty-eight, came in suffering with great swelling of the face, hands and dorsums of the feet. The skin was parched, dry and very scaly, and there were desquamating patches on the groins, axilla, trunk and thighs. The deformity of the lips had become so pronounced that he had had a plastic operation, with a partial result. A capable dermatologist had been treating this patient for several years, for the condition had been present for more than ten years. He had used roentgenotherapy, arsphenamin and many different

local medicaments, and it was at his suggestion that gall-bladder drainage and colonic lavage were undertaken. The diagnosis was psoriasis.

There was a suggestive gall-bladder history, the man having had typhoid in early life, with a relapse, and jaundice with chills and fever. The gall-bladder was enlarged and thickened to the x-ray. After about eight drainages, with many colonic lavages, the patient had entire clinical relief from this obstinate skin condition.

The cause of gall-bladder drainage is going ahead in spite of its detractors. McClure and others have shown that magnesium sulphate in the duodenum does actually stimulate the flow of bile and reduce the size of the gall-bladder. The method must be used thoroughly, wisely and consecutively in order to obtain results.

Dr. J. M. Poer, West Point: When Dr. Niles stated that eight patients had had their gall-bladders removed before this treatment it seemed to me rather a misnomer to say "gall-bladder drainage" in these cases, but that thought was carried further by Dr. Daney, who used a term which means more—"drainage of the affected gall-bladder ducts." Some have suggested, in criticism of this treatment, that a dose of salts will do the same thing, and the patient will feel better the next day. In the cases of ordinary biliousness, as we accept the term, emptying the stomach will make the patient feel better the next day. I have treated some of these patients with gall-bladder trouble and distinct liver dysfunction with repeated doses of salts, and they have obtained no relief. Then I have tried the gall-bladder tract drainage as described by Dr. Niles with splendid relief. When it comes to surgical and non-surgical drainage I would prefer the non-surgical every time. Repeated drainages would lead me to prefer this method to surgical drainage, but as Dr. Niles said, diseased conditions of the gall-bladder which require surgery should have surgery. I believe that surgical drainage is fast coming into disrepute. If the gall-bladder is sufficiently diseased to require surgical drainage, then it should be removed. The non-surgical drainage will do no harm, and as has been brought out, it does open the liver cells. The difference is that we put the sulphate of magnesium right at the opening of the ducts and stimulate the flow of bile in a manner which we cannot possibly do by doses of salts.

Dr. Seale Harris, Birmingham, Alabama, (by invitation): I am sure I can add nothing to this discussion. As to biliary drainage, I think it has its place. I think perhaps Lyons and some of his followers were too enthusias-

tic in the early years of gall-bladder drainage, but I believe it is now coming into its rightful place. In the early cases of gall-bladder infection, combined with proper diet, I am sure it is helpful. In old cases, and where there are gall-stones my judgment is that the sooner the diagnosis is made and the patient operated upon the better.

In the question of diagnosis biliary drainage is of value, and in selected cases it is helpful, but I think it has rather a limited field of usefulness in gall-bladder infections.

Dr. George M. Niles, Atlanta (closing): I thank you for your kind discussion. I think it is realized that the bile, when properly connected with the pancreatic juice is the sanitary officer of the digestive system. When it is not properly working, the patient becomes toxic in many ways. I am deeply appreciative of the changed attitude of the profession toward this procedure from that which prevailed when I first started using it. At first there was either active opposition, or an attitude of amused tolerance. Some would give it a kind word in passing, like throwing a dog a bone, but at the same time, like our distinguished guest just now, would damn it with faint praise. I want Dr. Harris to go home and take a fresh start on this. He spoke of having the gall-bladder removed, and we discussed that pretty thoroughly yesterday. I want the doctor to take a fresh start and drain some of those infected cases, and I believe he will see a new light and if he will go at it in the proper spirit the light will come to him as it came to St. John on the Island of Patmos, and will open up to him a new Heaven and a new earth.

Those of you who heard my paper, and those who did not, but will read it later on, will agree that I have made no unwarranted claims. I have been conservative, for I know that any method has to possess some merit in order to survive, but the laymen and the surgeons themselves are getting away from radical gall-bladder surgery. They are seeking methods of this sort, and I believe within my heart that this method, as it is developed and followed up, will not only abide but will give comfort to many patients of this type, where infection persists in the unclean and infected gall-bladder.

HEMORRHOIDECTOMY

Jerome M. Lynch

Am. J. Surgery. 1:245 November 1926.

The author states that local Novocain anesthesia is responsible for much of the improved technique in rectal surgery. About 95% of his hemorrhoidectomies are performed under local anesthesia and he finds this method most satisfactory.

RECENT CONTRIBUTIONS TO THE STUDY OF THE GALL BLADDER*

W. H. GOODRICH, M.D.

Augusta

The function of the gall bladder has for many years afforded a problem that has excited the keenest interest of scientific investigators. Recently the work of Lyons with the duodenal tube and within the past year the revelations of cholecystography have thrown considerable light upon the study of a subject heretofore but poorly illumined.

The function of the gall bladder has for a long time invited more than passing interest of the physiologist and pathologist. The interest of the surgeon was evoked when he learned the value of draining the gall bladder, and further stimulated when he removed the gall bladder and found no ill effects followed. As is frequently true, the cursory interest of the internist required personal participation in order to properly arouse and focus it, so that his real interest in the function of the gall bladder was not fully awakened until Lyons, in 1919, described his method for the diagnosis and treatment of the diseases of the gall bladder and ducts.

His method, because of its potential importance, has been widely taken up and, though its clinical value has so far been disappointing, it has had a decidedly stimulating influence on the study of the function of the liver and gall bladder.

Lyons' method consists in draining the biliary tract through a duodenal tube after the sphincter of Oddi has been relaxed by locally applying a concentrated solution of magnesium sulphate.

We can but admit that this method affords a means of clinical study of the biliary tract and liver function, the possibilities of which may perhaps be far reaching.

The gall bladder from a critical examination of its structure undoubtedly performs some function or perhaps several functions. That it is not indispensable to the animal economy, however, is proven by the ablation of this organ being followed apparently by no harmful results. From a study of its histological make-up, a special arterial supply, a

rich lymphatic system, and a mucosa which is thrown into irregular folds arranged apparently to increase its surface area, one function, that of absorption, is strongly suggested.

Bile drawn from the gall bladder is approximately ten times as strong or concentrated as that coming directly from the liver. From this fact we are warranted in also deducing as a function this power of concentration or absorption.

Now, if the gall bladder has a definite function or functions, it would be reasonable to assume that in those animals not possessing a gall bladder there must be some means or mechanism which takes over this function. That is to say if the gall bladder is functionally important then presumably, a review of the data on the comparative anatomy of the biliary tract would be supposed to throw some light upon this function. Unfortunately, however, this is not the case, and the data derived from this source allows us no definite conclusions so that it becomes necessary to seek elsewhere for the explication of the problem.

One of the earliest and most widely accepted theories of the function of the gall bladder was that of a reservoir for the storage of bile between digestive periods. The capacity of the gall bladder which is approximately one ounce, considered in relation to the amount secreted by the liver daily makes this theory, without qualification, improbable, as practically no bile enters the duodenum during fasting. However, the marked power of absorption possessed by the gall bladder greatly increases its storage capacity, so that viewed in this light, it does function to a considerable extent as a reservoir.

We do not know with certainty how the flow of bile is regulated. A generally accepted view supposes that the gall bladder controls this by acting as a tension bulb or expansible chamber. If we assume that the pressure in the biliary tract is regulated by the gall bladder, we must at the same time admit that apparently no harmful effects follow a cholecystectomy and furthermore the regulation of the bile flow in animals having no gall bladder is seemingly as normal as in animals that possess one. It is accepted that bile is continuously secreted by the liver cells and passes intermittently into the duodenum. Now when

the gall bladder is removed certain changes occur, evidently compensatory in character and chiefly manifested by a dilatation of the extra-hepatic-duets. This noticeable increase in the size of the duets quickly following cholecystectomy offers strong support to the theory that one of the functions of the gall bladder is to equalize the pressure in the biliary duets.

There are competent observers who advance the theory that the flow of bile is regulated measurably by the sphincter of Oddi. It is well established that bile normally passes into the intestine intermittently and not continuously, and the advocates of this theory attribute the intermittence of the flow to the action of this sphincter. It is also true that following the removal of the gall bladder the sphincter of Oddi becomes incompetent because of the marked dilatation of the common duct. That this sphincter becomes incompetent suggests to these observers a large degree of participation in the regulation of the flow.

Those observers who consider that the bile flow regulation is largely influenced by the sphincter of Oddi, maintain that between digestive periods this sphincter mechanically determines the passage into the gall bladder for concentration of all the bile formed. As a pertinent generalization of such a theory this process of concentration may be said to have as its main object the supplying of a readily available and positive physiological chologogue.

There is much uncertainty as to the real influence of this sphincter, particularly as there is considerable indefiniteness and question regarding its anatomy. Even the existence of a definite anatomic sphincter is denied by competent investigators.

Burget of Oregon, considers the normal tonus of the duodenum sufficient to prevent the continuous flow of bile into the bowel. The common duct empties obliquely through the wall of the duodenum and as Burget suggests, this physical arrangement really amounts to a sphincter depending upon the muscular tonus of the intestinal wall. In his opinion, the sphincter of Oddi, as a distinct anatomic structure is not proven, and its function has

possibly been over emphasized.

There are authorities who believe the gall bladder capable of emptying like the urinary bladder, others that no bile entering the gall bladder passes out of the cystic duct. Sweet and Halpert (1924) insist that no bile entering the gall bladder ever leaves through the cystic duct, basing this opinion on the mechanical hindrances to the out flow of bile and the known capacity of the gall bladder for concentration.

At death, the gall bladder is never found empty and until very recently the evidence appeared to be quite conclusive that the gall bladder never completely empties at one time.

In 1924, Evarts Graham demonstrated that the gall bladder could be made opaque to the X-ray by the intravenous injection of P. S. P. derivatives. These salts are excreted by the liver into the bile and the bile carrying the dye accumulates in the gall bladder making it opaque to the X-ray.

Severe reactions occurred at times following the intravenous use of the drug and induced Graham to carry out experiments with the dye by oral administration. The results proved to be quite uniformly satisfactory, although as basic deductions it was found that the shadows are not so dense and the findings not so dependable as those produced by intravenous injection.

After many clinical and experimental trials Graham and his co-workers are convinced that sodium tetra-iodophenol-phthalein is the most satisfactory derivative to be used, a finding that has recently been corroborated by other investigators.

The introduction of the tetra-iodophenol-phthalein test or cholecystography as it is now termed promises to be a diagnostic agent of paramount importance.

Lange of Cincinnati and Whittaker of Boston, state that in a series of many hundred of clinical cases they were able to obtain definite and satisfactory shadows in more than 93% of the normal cases.

Slight or faint shadows suggest an organ whose function has been impaired, i. e., abnormal or diseased gall bladders either produce no shadows, or very faint shadows, for they do not fill with the dye as do normal

gall bladders. This failure of visualization may be mechanical as for example obstruction or from complete loss of function. If jaundice is present, no shadows are produced by the dye.

One of the contributions of cholecystography that is of great clinical importance is the determination of the position of the gall bladder.

If we consult Gray's Anatomy we find this description, "the fundus of the gall bladder is usually at the lower edge of the 9th costal cartilage on the outer edge of the right rectus muscle. Here it rests directly on the abdominal wall." We have been taught, and we have taught our younger members, to palpate the gall bladder under the costal border at this point.

Lange reports that in a series of several hundred cases of gall bladder visualization he found the gall bladder below the limits of the hypochondriac and epigastric regions descending into the right lumbar or umbilical regions in 75% of these cases. The importance of this observation in its clinical bearing is quite startling.

Cholecystography has given evidence of being a valuable diagnostic agent, not only determining the presence or absence of disease of the gall bladder, but determining the position of the gall bladder as well. This determination of the presence of the disease is seemingly quite dependable. Gall bladders apparently normal to careful inspection and palpation but pathological when visualized have, upon excision and laboratory examination, very uniformly shown evidence of disease.

It has been shown by investigators that if sodium tetra-iodophenol-phthalein is administered intravenously it appears in the bile in about four hours after injection. If administered by mouth, it does not appear in the gall bladder until about the fifteenth hour. In both instances after eighteen hours the dye begins to disappear and is entirely gone after twenty-four to thirty-two hours. The administration of the dye by mouth necessarily introduces an element of error because it may not be absorbed, or only partly absorbed, so that for this reason the oral method although

satisfactory is not so dependable as the intravenous method. Apparently the only serious contraindications to the intravenous method of administration are cardiac or arterial disease.

Dr. E. A. Boyden of the Harvard School demonstrated in 1922 that the gall bladder could be made to completely empty itself naturally by the ingestion of appropriate food. He proved experimentally on the cat that a meal rich in fat—egg yolk and cream—would in two hours induce a complete emptying of the gall bladder. Boyden's work on the cat has apparently been confirmed with cholecystography by Whittaker on the dog and Sosman in man. These facts would tend to show fairly conclusively that the gall bladder does completely empty. The intraduodenal administration of magnesium sulphate has also been checked with cholecystography by Whittaker who found that moderate shrinkage of the gall bladder shadow was produced by Lyons' method but complete emptying such as followed a Boyden's meal did not occur.

Whittaker mildly suggests, "Why drain a man's gall bladder with a duodenal tube if the gall bladder drains every time he eats?"

Analyzing the data presented by modern research and investigations many may assume that the gall bladder has several very definite functions, and on the basis of this data we are warranted in formulating at least four functional activities.

1st: That of absorption or concentration of bile.

2d: Supplying bile rich in bile salts for stimulation of the liver at the time when digestion is most active.

3d: Acting as a reservoir during the fasting state by virtue of its power of absorption.

4th: As a tension bulb equalizing the biliary duct pressure.

Until recently our conception of diseases of the gall bladder and ducts was limited to or only in association with gall stones. Inflammation is now recognized as the essential and primary disease. It is true that gall stones are found in approximately two-thirds of all cases of gall bladder disease, but in most in-

(Continued on page 108)

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Profession of Georgia
139 Forrest Ave., N. E., Atlanta, Ga.

MARCH, 1927

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

VITAL STATISTICS

Beginning with this issue the Journal will publish each month Morbidity and Mortality reports as received from the Bureau of Vital Statistics of the State Board of Health.

The value of these reports to the State Medical Association and to the profession at large is inestimable. Their accuracy depends upon the interest of the doctors of the state in reporting promptly all notifiable diseases.

MORTALITY OF ACUTE APPENDICITIS

There is a notable degree of indifference or ignorance not only on the part of the intelligent laity but to certain extent among members of the medical profession as to the prevalence and danger of acute appendicitis.

In the first place the fact seems to be ignored that the theoretical mortality should be zero; second the general death rate is increasing; third that the mortality from ap-

pendicitis among physicians is greater than that of average adult population; fourth that a majority (60%) of operations for abdominal disease concern the appendix which gives a great per cent (41%) of the deaths; fifth that the annual incidence of an appendectomy is about one in 300 population; sixth that recovery from an appendiceal peritonitis still has to reckon with a remote morbidity and mortality; seventh that some of the lowest mortality rates may be found in the less populated districts and smaller hospitals and eighth early diagnosis and not surgical skill should be awarded the credit for a low mortality rate. The purpose of this article is to discuss the last item.

From reading reports in current surgical literature one would conclude that a low mortality rate proceeds mainly from surgical skill per se and important as the technic may be it becomes a case of over emphasis in awarding credit. Surgeons have been too hasty in drawing such a conclusion from their own statistics.

Notwithstanding a highly organized operative and post-operative technic it has been shown that when the percentage of drainage cases increases from 50% to 75% the mortality rate becomes increased 100%.

An early diagnosis is a *sine qua non*, for the destiny of a case of acute appendicitis is to a greater extent in the hands of the intelligent attending physician who sees a suspected case often and calls a consultant for diagnosis early in that golden stage of opportunity for intelligent interpretation of symptoms. Among several consultants one may smell fire. What is the use of a consultant when the patient is well on the road to a peritonitis? Is the physician conscientious who waits conscientiously for classical symptoms in a suspected case? Certainty of diagnosis has been bought at a fearful price.

—R. M. HARBIN.

STATE BOARD OF HEALTH ANNUAL MEETING

The annual meeting of the State Board of Health was held in the offices of the Board on Wednesday, January 26th. Mr. Robert F.

Maddox, President, presided. The following members were present:

Mr. Robert F. Maddox, President, Atlanta.
Dr. James H. McDuffie, Vice-President, Columbus.

Dr. Chas. H. Richardson, Jr., Macon.
Dr. Arthur D. Little, Thomasville.
Dr. W. I. Hailey, Hartwell.
Dr. Fred D. Patterson, Cuthbert.
Dr. John A. Rhodes, Crawfordville.
Dr. A. C. Shamblin, Rome.
Dr. A. A. Lawry, Valdosta.
Dr. M. S. Brown, Fort Valley.
Dr. C. R. Brice, Gainesville.
Mr. F. A. Land, Atlanta.
Dr. Peter F. Bahnsen, Atlanta.
Dr. T. F. Abercrombie, Atlanta.

This meeting had the largest attendance of any meeting in the past. The attached is an excerpt from the annual report of Dr. Abercrombie to the Members of the Board.

At the conclusion of the meeting Mr. Maddox was re-elected President of the Board and Dr. McDuffie was re-elected Vice-President for the ensuing two years.

OUTSTANDING FEATURES OF THE WORK OF THE STATE BOARD OF HEALTH FOR THE YEAR 1926

Last year I reported to you that the Supreme Court had declared unconstitutional that part of the Vital Statistics Law regarding payment of fees to local registrars, therefore, resulting in Georgia being dropped from the registration area. At the extraordinary session of the legislature last summer an amendment correcting the defect in the law was passed, and later submitted to the people. It was ratified by the largest majority of any amendment in Georgia during the past ten years.

The new \$500,000 Tuberculosis Sanatorium at Alto was substantially completed during the past year.

The laboratory examined 48,285 specimens as compared with 6,180 in 1918.

26,307 Wassermann Tests for Syphilis.

6,608 Water Analyses.

831 Rabies.

15,370 Miscellaneous specimens for different diseases.

The following biologicals were distributed:

2,162 Complete Treatments for Rabies manufactured and distributed;

1,852 for humans; 310 for animals.

243,629 c.c. Typhoid Vaccine.

57,296,000 Units Diphtheria Antitoxin.

76,555 c.c. Toxin-Antitoxin for Permanent Immunization of Children against Diphtheria.

7,650 Schick Tests for Diphtheria.

23,345 Ampules Silver Nitrate for Babies' Eyes.

16,500 c.c. Carbon Tetrachloride for Treatment of Hookworm Disease.

739,000 Units Tetanus Antitoxin.

54,820 Units Smallpox Vaccine.

The Division of Sanitary Engineering made a survey of 188 waterworks; 15 sewerage plants; 7 swimming pools, and 79 malaria projects. This division keeps a close watch over the municipal water supplies of the State as is shown by the following figures: There is a total of 242 water supplies in the State, and 180, or 75 per cent, are under the direct supervision of the State Board of Health.

Public water supplies certified for 1926 89

Public water supplies not certified, due to insanitary conditions or defective plants; failure to meet bacteriological standards; or to having submitted too few samples for examination to be entitled to certification 90

Public water supplies giving no co-operation to State Board of Health in submitting samples for bacteriological examination 63

Total public water supplies in Georgia 242

The rapid development of hydro-electric power in the state has increased the amount of work in this department tremendously in efforts to prevent malaria in the areas where water is impounded. The new proposed Savannah River project will cover at least 35,000 acres of land, and it is a great undertaking for an area of this size to be impounded in such a way that it will not be conducive to the spread of malaria.

The Division of Venereal Disease Control shows a record of 38,588 Wassermann Tests being made for syphilis; 28,696 Keidel tubes were distributed, and 37,788 doses of arsphenamine (treatment for syphilis).

A splendid piece of work was done in the

Y. M. C. A. Camps throughout the State last summer by having a lecturer get in touch with 996 boys. Dr. Stewart, a colored physician from the United States Public Health Service, did a large amount of work among the colored people. Miss Anne Simpson of the Public Health Service continued her work in the state among the high school girls. Several radio lectures were given.

There were 35,217 cases of communicable diseases reported during the year 1926. The Journal of the Medical Association of Georgia has offered to print each month the reports of cases of communicable diseases as well as the deaths. This offer will solve a very difficult problem for us in getting this information to the people in a readable form. Heretofore the task has been too expensive for us to undertake.

The Division of Child Hygiene carried on an active campaign for the education of midwives based on resolutions passed by the Board at the January, 1925, meeting. Midwife instructions were given by the nurses to 241 classes with 2,198 midwives present. This work is financed on a fifty-fifty basis with the Sheppard-Towner Fund.

Thirty thousand copies of the second edition of the Georgia Baby Book were printed last year.

There were 239 Little Mothers' Leagues organized by the nurses with an enrollment of 2,349.

Through the co-operation of the American Child Health Association a very extensive May Day Program was put on last year. Mrs. C. A. VerNooy of Athens acted as Chairman of the May Day Committee for us. Plans for 1927 are already under way, and we have adopted the following program:

"Each community to have an active May Day Committee representing organizations interested in Health Education and Welfare.

"Each baby on reaching six months of age to be given toxin-antitoxin to prevent diphtheria.

"Each child to present birth, medical, dental and vaccination certificates on entering school.

"Each county, either singly or in combination with other counties, to have a Commissioner of Health, Public Health Nurse as provided by the Ellis Health Law, and to have a Demonstration Agent.

"Each citizen to know of reduced rates on railroads and hospitals for treatment of indigent children. Arrangements to be made through the State Board of Health, Atlanta, Ga.

"Each citizen to know that but 3c per capita is appropriated by the legislature for health activities for all citizens of Georgia. A progressive program of health conservation calls for an adequate appropriation to our State Board of Health. We must appreciate that the absence from school, because of preventable illness or physical defect, is a large item of waste in school administration, and that health for our entire state is to be had through a reasonable expenditure of money. Full enjoyment of good roads, good schools and good churches depends upon good health."

Under the Sheppard-Towner or Maternity and Infancy Fund, there are nurses in the following cities and counties:

Richmond
Chatham
Muscogee
Bibb
Clarke
DeKalb
Fulton
Burke
Whitfield
Dougherty
Thomas
Peach

The total Federal Allotment has been used. In passing I might mention that the Sheppard-Towner Allotment has been extended for a two-year period, ending July 1, 1929.

One of the most successful campaigns ever inaugurated by the State Board of Health was the campaign for the immunization of children against diphtheria carried on during the fall months. We furnished free of charge 76,555 c.c. of toxin-antitoxin. This, of course, stimulated the desire on the part of the people to have their children immunized from

other sources, and we estimate that approximately 100,000 children were given permanent protection against diphtheria as a result of this campaign.

The Healthmobile operated during the summer and fall months and visited 17 counties. The Healthmobile has visited 138 counties since it was put into operation. While we have no actual figures to base the statement on, I believe that this work has been of tremendous value in interesting the people of Georgia in having better health protection, and this work has been carried to the remotest sections of our State.

The State Tuberculosis Sanatorium at Alto cared for 357 patients last year, covering 33,931 hospital days. The daily per capita cost was about two dollars.

In my report last year to the Board I made the statement that a campaign should be started to have hospitals built by counties and districts to take care of adult tuberculosis patients. Since that time ninety beds of this type have been provided. Thirty beds in Clarke County, thirty beds in Macon and Bibb County, twenty beds in Columbus and Muscogee County, and ten beds in Savannah. If there were more hospitals over the State of this type, our tuberculosis problem would be less acute.

GEORGIA TRAINING SCHOOL FOR MENTAL DEFECTIVES

Seventy-one children were cared for at this Institution during the past year. Twelve of these were discharged, and it is with a great deal of pride that we learn through social workers and parents that they are making good, and in several instances they are assisting in taking care of the families. Several of these patients when admitted to the Institution were of the vicious and idle type, and have been returned to their communities as useful and self-supporting citizens.

I believe that this Institution has a brighter outlook now than at any time in the past. On a recent visit to Augusta, one of the high officials of the Elks' Club made a visit to the Institution with the idea of helping to secure additional appropriations and better buildings. During the fall of 1926 an organization called the Georgia Society for Mentally De-

fective Children was perfected by Judge Humphries with Judge Garland Jones and Dr. Adkins, all of Atlanta, as members. A group of private citizens at Augusta are helping finance this project, and they have employed Mr. Robert McCord as Executive Secretary. Mr. McCord is now covering the state in the interest of the feeble-minded children and the Training School at Gracewood.

EDUCATIONAL

A thirty-lesson course was given to the A. & M. Schools during the summer months. We furnished the lessons and material, and the Department of Education furnished the teachers to present this course to, at least, 2,000 school teachers. This lesson course will be published in the State School Items by the Department of Education, and will reach practically every school teacher in Georgia.

The plate matter to the weekly newspapers is still going out, reaching at least a million readers. Lectures and talks to various groups throughout the state have been a part of our educational program.

CORRECTIONAL CLINICS

In my report of last year, I made the following statement:

"For the past ten or fifteen years health authorities of the country have stressed the medical examination of school children and pointed out to the parents and communities the enormous number of physical defects and handicaps school children really have, but until recently very little has been done to correct the defects on a systematic basis. Clinics have been held more or less spasmodically throughout the state for the past few years. In counties where they have no health authorities to make provisions for the correction of physical defects the people are at a loss to know how to go about securing such service."

Since that time arrangements have been made with twenty-seven hospitals throughout the state to take children that are unable to pay the regular prices that have physical defects and have all the correctional work done for a maximum fee of \$7.50. The railroads have very graciously granted special privileges of half-fare for such children to and from the hospitals. With this arrangement

there is no excuse for any child in the state having a physical defect of any kind to go uncorrected. It only remains for us to reach these children and get them into the hospitals. I don't think I have ever seen a finer spirit than was manifested by the hospitals and railroads in agreeing to co-operate with us. Some of the hospitals that were not included on our original list have written us asking to be put on the list of those willing to co-operate.

In conclusion I would like to say that I think there is a better spirit of interest and co-operation of all agencies throughout the state, looking toward improved health conditions. The Medical Association of Georgia is taking an active part in not only our legislative program, but the educational program as well.

T. F. ABERCROMBIE, M.D.,
Commissioner of Health.

GEORGIA STATE BOARD OF HEALTH—
BUREAU OF VITAL STATISTICS
MORBIDITY AND MORTALITY REPORT
FOR MONTH OF JANUARY 1927

Diseases Reported for Jan., 1927†

Number Annual Rate 100,000 Pop.

	Cases	Deaths	Cases	Deaths	Death Rate 100,000 Pop. 1924
Acute Inf. Con- junctivitis	2		0.8		
Anchylostomiasis	4		1.5		
Anthrax	1		0.4		
Cerebrospinal Meningitis	4	3	1.5	1.1	0.9
Chicken Pox	165		62.5		0.2
Diphtheria	155	26	58.7	9.8	7.3
Dysentery	3	3	1.1	1.1	14.6
Gonorrhea	240		90.8		1.0
Influenza	621	92	235.1	34.8	30.7
Lethargic Enceph- alitis	1	2	0.4	0.8	0.5
Malaria	47	11	17.8	4.2	13.1
Measles	326	4	123.4	1.5	18.6
Mumps	74		28.0	12.1	0.1
Pneumonia	194	249	73.4	94.3	69.5
Poliomyelitis	1	2	0.4	0.8	0.8
Rabies*		1		0.4	0.2
Scarlet Fever	117	2	44.3	0.8	0.7
Septic Sore Throat	38	1	14.4	0.4	2.7
Smallpox	405	1	153.3	0.4	0.8
Syphilis	197	30	74.6	11.4	14.2
Tetanus	3	7	1.1	2.6	2.6
Tuberculosis (Pulmonary)	67	147	22.7	55.6	779.9
Tuberculosis					
Typhoid Fever	33	22	12.5	8.3	22.1
Typhus Fever	2		0.8		22.1
Whooping Cough	178	21	67.4	7.9	0.7

*Atlanta

†Provisional figures subject to correction

NOTIFIABLE DISEASES

Actinomycosis
Acute infectious conjunctivitis
Anthrax
Cerebrospinal meningitis
Chicken pox
Cholera
Dengue
Diphtheria
Dysentery (amebic)
Dysentery (bacillary)
Favus
German measles
Glanders
Gonorrhea*
Hookworm
Influenza
Leprosy
Lethargic Encephalitis
Malaria
Measles
Mumps
Paratyphoid fever
Pellagra
Plague
Pneumonia (acute lobar)
Poliomyelitis
Rabies
Rocky Mountain spotted or tick fever
Scarlet fever
Septic sore throat
Smallpox
Syphilis*
Tetanus
Trachoma
Trichinosis
Tuberculosis (pulmonary)
Tuberculosis (other than pulmonary)
Typhoid fever
Typhus fever
Whooping cough
Yellow fever

*Indicate by number only

TRAVEL STUDY CLUB OF AMERICAN PHYSICIANS

At the completion of its recent European Study Tour, the Travel Study Club of American Physicians elected Dr. Fred H. Albee of New York, as President, Drs. Edward B. Heckel of Pittsburgh, and John P. Lord of Omaha, as Vice-Presidents, and Dr. Richard Novacs of New York, as Secretary.

Plans are being prepared for the next study trip, including the Central European countries: Germany, Austria, Czechoslovakia, Hungary and Italy.

District and County Societies

District Editors

- | | |
|---------------------------------|-------------------------------|
| 1. Long, W. V., Savannah. | 7. McCord, M. M., Rome. |
| 2. Watt, C. H., Thomasville. | 8. Carter, D. M., Madison. |
| 3. Greer, Chas. A., Oglethorpe. | 9. Bennett, J. C., Jefferson. |
| 4. Peniston, Joe B., Newnan. | 10. Lee, F. Lansing, Augusta. |
| 5. Fitts, Jno. B., Atlanta. | 11. Mixson, W. D., Waycross. |
| 6. Thompson, O. R., Macon. | 12. Cheek, O. H., Dublin. |

1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.
2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926.
3. Dougherty County, Dr. I. M. Lucas, Albany, Dec. 15, 1926.
4. Chattooga County, Dr. W. B. Hair, Summerville, Dec. 16, 1926.
5. Macon County, Dr. F. M. Mullino, Montezuma, Dec. 30, 1926.
6. Lamar County, Dr. Jno. M. Anderson, Barnesville, January 6, 1927.
7. Pike County, Dr. M. M. Head, Zebulon, January 25, 1927.
8. Rabun County, Dr. J. A. Green, Clayton, January 27, 1927.
9. Murray County, Dr. E. H. Diekie, Chatsworth, January 27, 1927.
10. Taylor County, Dr. J. C. Hind, Reynolds, January 29, 1927.
11. Jasper County, Dr. E. M. Lancaster, Shady Dale, February 9, 1927.
12. Terrell County, Dr. Logan Thomas, February 24, 1927.

CLARKE COUNTY MEDICAL SOCIETY 1927

- Paul L. Holliday, President.
Corbin J. Decker, Vice-President.
Harold I. Reynolds, Secretary-Treasurer.

COMMITTEES

Publicity:

- Linton Gerdine, Chairman.
J. A. Hunniutt.
G. O. Whelehel.
T. B. Gay.

Finance:

- H. M. Fullilove, Chairman.
Harvey Cabaniss.
R. M. Goss.
M. F. Mathews.
A. C. Holliday.
S. S. Smith.

Entertainment:

- A. A. Rayle, Chairman.
C. J. Decker.
H. I. Reynolds.
B. W. Carey.
J. C. Holliday.
H. W. Birdsong.
J. C. McKinney.

THOMAS COUNTY MEDICAL SOCIETY

Meigs, Ga., Feb. 8, 1927.

The Thomas County Medical Society met in regular session in the City Hall of Meigs and in the absence of Pres. Roy Hill and Vice-Pres. Mary J. Erickson, was called to order by Dr. Isler. After the minutes of the last meeting were read and adopted the scientific program was taken up.

The first item was a case report of paralysis of the left leg in a boy of nine, following a right sided knife stab wound at the level of the sixth dorsal vertebra, with partial return of function three weeks after injury. This case was discussed by practically all the members present.

Dr. Ainsworth next read a paper on Typhus Fever, and reported a case in his practice. This was a very comprehensive paper and went into great detail as to the cause and distribution of this disease. This was also discussed by the meeting generally. This paper was gotten up jointly by Drs. Ainsworth and Erickson, and it was regretted that Dr. Erickson could not be present at the presentation.

Next a case report of a boy with gunshot wound of the orbit with plates showing localization of foreign body was presented by Dr. C. K. Wall. This was followed by some plates showing interesting conditions presented by Dr. Parry.

The business of the session was disposed of and the meeting repaired to the Meigs Business Club room where we were the guests of Dr. Isler to a most delightful luncheon.

C. K. WALL, Sec.-Treas.

COUNTY SOCIETIES REPORTING FOR 1927

PIKE COUNTY MEDICAL SOCIETY

Pike County medical Society announces the following officers for 1927:

Vice-President—D. L. Head, Zebulon.

Secretary-Treasurer—M. M. Head, Zebulon.

Delegate—M. M. Head, Zebulon.

Alternate—J. H. Grubbs, Molena.

Board of Censors—J. R. Graves, I. B. Howard and R. A. Mallory.

RABUN COUNTY MEDICAL SOCIETY

Rabun County Medical Society announces the following officers for 1927:

President—Lester Neville, Dillard.

Vice-President—J. C. Dover, Clayton.

Secretary-Treasurer—J. A. Green, Clayton.

WHITFIELD COUNTY MEDICAL SOCIETY

Whitfield County Medical Society announces the following officers for 1927:

President—H. J. Ault, Dalton.

Vice-President—B. L. Kennedy, Dalton.

Secretary-Treasurer—E. O. Shellhorse, Dalton.

Delegate—Trammell Starr, Dalton.

Alternate—J. C. Rollins, Dalton.

Board of Censors—J. H. Steed, B. L. Kennedy and R. S. Bradley.

MURRAY COUNTY MEDICAL SOCIETY—100%

Murray County Medical Society announces the following officers for 1927:

President—M. P. Bates, Ramhurst.

Vice-President—R. H. Bradley, Chatsworth.

Secretary-Treasurer—E. H. Dickie, Chatsworth.

Delegate—R. H. Bradley, Chatsworth.

Alternate—J. E. Bradford, Spring Place.

EMANUEL COUNTY MEDICAL SOCIETY

Emanuel County Medical Society announces the following officers for 1927:

President—E. T. Coleman, Graymont.

Vice-President—S. S. Youmans, Oak Park.

Secretary-Treasurer—R. C. Franklin, Swainsboro.

Delegate—R. C. Franklin, Swainsboro.

Alternate—J. D. Bailey, Summertown.

TAYLOR COUNTY MEDICAL SOCIETY—100%

Taylor County Medical Society announces the following officers for 1927:

President—W. W. Edwards, Butler.

Secretary-Treasurer—J. C. Hind, Reynolds.

JASPER COUNTY MEDICAL SOCIETY—100%

Jasper County Medical Society announces the following officers for 1927:

President—J. A. Brown, Shady Dale.

Vice-President—J. F. Anderson, Hillsboro.

Secretary-Treasurer—E. M. Lancaster, Shady Dale.

Delegate—F. S. Belcher, Monticello.

BURKE COUNTY MEDICAL SOCIETY

Burke County Medical Society announces the following officers for 1927:

President—H. J. Morton, Waynesboro.

Vice-President—W. H. Sutton, Midville.

Secretary-Treasurer—R. L. Miller, Waynesboro.

Delegate—R. L. Miller, Waynesboro.

Board of Censors—J. M. Byne, J. B. Lewis and W. W. Hillis.

BLUE RIDGE MEDICAL SOCIETY

Blue Ridge Medical Society announces the following officers for 1927:

President—J. M. Daves, Blue Ridge.

Vice-President—N. C. Goss, Ellijay.

Secretary-Treasurer—C. B. Crawford, Blue Ridge.

Delegate—C. B. Crawford, Blue Ridge.

Board of Censors—E. L. Prince, N. C. Goss and A. L. Prince.

HENRY COUNTY MEDICAL SOCIETY

Henry County Medical Society announces the following officers for 1927:

President—R. L. Tye, McDonough.

Vice-President—E. G. Colvin, Locust Grove.

Secretary-Treasurer—H. C. Ellis, McDonough.

Delegate—J. G. Smith, McDonough.

Board of Censors—R. L. Crawford, E. G. Colvin and J. G. Smith.

SCREVEN COUNTY MEDICAL SOCIETY

Screven County Medical Society announces the following officers for 1927:

President—H. E. Ezell, Oliver.

Vice-President—L. F. Lanier, Rocky Ford.

Secretary-Treasurer—E. E. Downing, Newington.

SUMTER COUNTY MEDICAL SOCIETY

Sumter County Medical Society announces the following officers for 1927:

President—S. P. Wise, Americus.

Vice President—J. F. Lunsford, Preston.

Secretary-Treasurer—Ford Ware, Americus.

Delegate—B. T. Wise, Plains.

Alternate—J. C. Logan, Plains.

Censor—J. F. Lunsford, Preston.

TERRELL COUNTY MEDICAL SOCIETY

Terrell County Medical Society announces the following officers for 1927:

President—R. E. Bowman, Bronwood.

Vice-President—J. G. Dean, Dawson.

Secretary-Treasurer—Logan Thomas, Dawson.

Delegate—J. G. Dean, Dawson.

Alternate—J. T. Arnold, Parrott.

WORTH COUNTY MEDICAL SOCIETY

Worth County Medical Society announces the following officers for 1927:

President—J. L. Tracy, Sylvester.

Vice-President—H. S. McCoy, Doerun.

Secretary-Treasurer—W. C. Tipton, Sylvester.

Delegate—W. C. Tipton, Sylvester.
 Alternates—H. S. McCoy, Doerun.
 Board of Censors—G. S. Summer, J. J. Crumbley and E. D. Ford.

THOMAS COUNTY MEDICAL SOCIETY

Thomas County Medical Society announces the following officers for 1927:

President—Roy A. Hill, Thomasville.
 Vice-President—Mary J. Erickson, Thomasville.
 Secretary-Treasurer—C. K. Wall, Thomasville.
 Delegate—C. H. Watt, Thomasville.
 Alternate—Roy A. Hill, Thomasville.

HOUSTON COUNTY MEDICAL SOCIETY

Houston County Medical Society announces the following officers for 1927:

President—J. W. Story, Kathleen.
 Vice-President—R. L. Cater, Perry.
 Secretary-Treasurer—E. L. Evans, Perry.

CLAYTON-FAYETTE COUNTIES MEDICAL SOCIETY

Clayton-Fayette Counties Medical Society announces the following officers for 1927:

President—G. W. Wallis, Fayetteville.
 Vice-President—T. C. Cannon, Jonesboro.
 Secretary-Treasurer—H. D. Kemper, Jonesboro.

HALL COUNTY MEDICAL SOCIETY

Hall County Medical Society announces the following officers for 1927:

President—C. G. Butler, Gainesville.
 Vice-President—C. J. Wellborn, Gainesville.
 Secretary-Treasurer—Pratt Cheek, Gainesville.
 Delegate—J. H. Downey, Gainesville.
 Alternate—B. B. Davis, Gainesville.
 Board of Censors—C. D. Wheelchel, J. B. Rudolph and J. D. Mauldin.

CLARKE COUNTY MEDICAL SOCIETY

Clarke County Medical Society announces the following officers for 1927:

President—Paul L. Holiday, Athens.
 Vices-President—Corbin J. Decker, Athens.
 Secretary-Treasurer—Harold I. Reynolds, Athens.

myocardium and kidneys have long been present.

The function of the gall bladder is impaired or lost in the presence of an inflammatory process because of an impairment or destruction of the functions of its mucosa and lymphatics.

In conclusion we are, I think, warranted in making the following deductions:

1st: In a chronic inflammatory infection of the gall bladder there is an infiltration of the gall bladder wall and lymphatics which cannot be reached by medication.

2nd: Removal of stones and drainage will relieve colic and digestive disturbances for a time but the infiltration of the gall bladder wall remains.

3rd: If from infection or from stones, or both, the gall bladder is so damaged in one way or another as to render it functionless, then removal is undoubtedly indicated.

4th: If the gall bladder becomes a focus of infection with secondary symptoms and destructive lesions occurring in distant organs, its removal becomes imperative for the protection of the patient.

5th: If the infection is not confined to the gall bladder, but extends to the hepatic and pancreatic tissues, cholecystectomy, which is followed by compensatory dilatation of the extra-hepatic-ducts with incompetence of the sphincter of Oddi, removes the primary focus and furnishes needed drainage for the liver and pancreas.

RECENT CONTRIBUTIONS TO THE STUDY OF THE GALL BLADDER

(Continued from page 100)

stances if not in all, infection of the gall bladder wall is present.

This infection may remain relatively quiescent in a state of slight virulence confined to the gall bladder wall, or it may become active with marked clinical symptoms, its activity and virulence still confined to the gall bladder, or extending to other parts of the biliary tract.

Unquestionably, in many cases where only a diseased gall bladder is recognized, secondary destructive lesions of the liver, pancreas,

ANNOUNCEMENT

The Committee on Medical Education of the New York Academy of Medicine has for some time been studying the opportunities for graduate medical education offered in New York City. Its approval has been lent to those courses only which were found to be well organized, with adequate equipment and clinical material, and given by physicians of character who are known to be qualified teachers in their special lines of work.

The investigation has been carried on by a number of sub-committees, which have surveyed the courses offered and have reported their recommendations to the full committee.

Information in reference to this may be obtained by writing to Dr. Frederick P. Reynolds, Medical Secretary, 17 West 43d Street, New York, N. Y.

Georgia State Association of Graduate Nurses

OFFICERS

President.....	Miss Lucy M. Hall, R.N. 522 East 40th St., Savannah, Ga.	2nd Vice-President.....	Miss Mae E. Burges, R.N. 1108 East Henry St., Savannah, Ga.
1st Vice-President.....	Miss Margaret E. Dorn, R.N. 1117 Telfair St., Augusta, Ga.	Secretary.....	Mrs. Alma E. Albrecht, R.N. Georgia Infirmary, Savannah, Ga.
Treasurer.....	Miss Jane VanDeVrede, R.N. 105 Forrest Ave., N.E., Atlanta, Ga.		

PRESIDENTS OF DISTRICTS

First.....	Miss Cora Byres, R.N. Grady Hospital, Atlanta, Ga.
Second.....	Miss Alma E. Brown, R.N. University Hospital, Augusta, Ga.
Third.....	Mrs. Mae M. Jones State Sanitarium, Milledgeville, Ga.
Fourth.....	Miss Frances E. White Oglethorpe Sanitarium, Savannah, Ga.

COUNSELLORS

Term expires 1927.....	Miss Mary Campbell, R.N. Oglethorpe Sanitarium, Macon, Ga.
Term expires 1928.....	Miss Lucia Masse, R.N. Cuthbert, Ga.
Term expires 1929.....	Mrs. Lillian O. Reed, R.N. University Hospital, Augusta, Ga.
Term expires 1930.....	Miss Annie Bess Feebeck, R.N. Grady Hospital, Atlanta, Ga.

"Nursing is carrying the responsibility for adapting and co-ordinating the conditions immediately surrounding a patient so as to re-establish and protect his health." Martha Russell, R.N.

PURPOSES OF ORGANIZATION

As we make our official bow in the editorial columns of the Journal of the Medical Association of Georgia we, the nurses of Georgia, desire to express our appreciation of the fine spirit of co-operation thus expressed.

What shall be recorded editorially in these columns we trust will serve to cement in worthier service to those to whom our lives are dedicated, the two professions of Medicine and Nursing.

Our state headquarters, close in proximity, though they be, are not as near as are our aims and purposes in life.

The first objective of our organization for the year is to locate, if possible, every nurse who is aiding in the care of the sick by following her profession, or calling whether a graduate nurse or not. We cannot tell whether the supply is equal to the demand until we know the number actually caring for sick people on an employment basis. This complete roster of nursing services is greatly needed. We are told that there is one doctor for every seven hundred and seventy-two people in the country at large. We have no idea how many nurses there are to be distributed over the population and we do not know whether there is a shortage relative or absolute in the number of nurses in the country. We hope to solicit the help of every doctor and nurse in

the state so that the information to the national committee furnished from Georgia may not be misleading nor unjust to facilities provided to the sick in our Georgia communities.

Since nurses are so largely employed by doctors this information can only be secured with their aid.

Another objective for the year is the publishing of the Year Book and Roster as a hand book of information for our membership and their interests.

The maintenance of our headquarters is another objective that challenges our resources.

Georgia has had for twenty years a permissive law regulating the practice of nursing. The time has come when compulsory law is mandatory in the interests of the public as prospective patients.

The Georgia nurse who goes to Florida or North Carolina must be immediately registered to practice in those states.

The out-of-state nurse comes to Georgia and does as she wills. Only compulsory registration can deal with problems growing out of this situation. One of the objectives of the State Association is an amendment to the nurse practice act to provide for this, to secure an annual re-registration of nurses and an arrangement for granting credits for college courses and special courses such as public health nursing, and others bearing directly

on the nurses' experience during her training. It would be an advantage to arrange for attendants courses and permit practical and undergraduate nurses to receive state recognition at this time also if support could be secured for such a measure.

The Ways and Means Committee would welcome correspondence in regard to the whole question. Address all communications to Headquarters, 105 Forrest Ave., N. E., Atlanta, Ga.

MEMBERSHIP

Do you know that:

The membership of the Georgia State Association of Graduate Nurses is about one per cent of the membership of the American Nurses Association?

The Davis Fischer Alumnae Association has the largest membership in the State Association although there are a number of older Alumnae Associations of larger schools?

There should be at least 283 more Registered Nurses practicing in Georgia than a year ago. That number were registered last year. Only one hundred of them have joined the State Nurses Association. Where are the others?

The May Day Committee of Georgia is sponsoring an active health promotional program in co-operation with the Child Hygiene division of the State Board of Health, all nurses should endorse it.

The Biennial Convention of the American Nurses Association will be held in Louisville, Ky., in the spring of 1928.

NEWS ITEMS

State Board Examinations for registration in Georgia will be held April 20th and 21st in Atlanta, Augusta, Macon, Savannah and Columbus, providing ten applications are received from each. Applications must be in the hands of the Secretary before April 10th.

The First District of the Georgia State Association of Graduate Nurses held its February meeting at the Davis & Fischer Nurses Home. Reports from the various Alumnae Associations were read and showed enthusiastic interest in increased membership in practically all the Alumnae Associations. The report from the Headquarters Committee, of which Miss Feebeck is the Chairman showed contributions of \$853.00 by Alumnae Associations and individuals; the largest individual

contribution was made by Mrs. Eva S. Tupman. The April meeting of the First District will be held April 15th, at the Georgia Baptist Hospital.

The Second District held its February meeting at the University Hospital, Miss Alma Brown, President, presided. The Senior student nurses of the Augusta Hospitals were the guests of the meeting. A report of the activities of the headquarters was read and plans for the year were discussed.

The February meeting of the Third District was held in Milledgeville. The program was in the form of a Public Health meeting. Dr. Applewhite, the Health Officer and Miss Louise Hazlehurst, the school nurse, read interesting papers. Plans for the State Convention, which is to be held the second week in November, are under way. Contributions to the Program should be made to Miss Lillian Alexander, Chairman, Health Department, City Hall, Atlanta, Ga., or Chairman of the Arrangements Committee, Mrs. Ruth Jones Henderson of Macon, Ga.

The Fourth District held its February meeting in the evening of the 23rd at the Telfair Hospital. The State Secretary had planned to be present but on account of the institute which was held by the Superintendent of Nurses of the Metropolitan Life Insurance Company for the nurses throughout the state her visit was postponed.

Treatment of Genital Gangrene with Neosalvarsan. O. Jersild. Ann. do dermatol. ot de syphiligr. Vol. 6, No. 11, p. 662. 1925.

Highly favorable results were obtained with intravenous injections of Neosalvarsan in the treatment of gangrene of the genitalia. Nine cases were treated. Lues did not exist; microscopic examination were only made in a few cases and did not furnish results etiologically valuable. In six of the cases a single injection sufficed for demarcation, deferescence and beginning recovery; at no time were more than 3 injections necessary. The results would indicate that Salvarsan possesses specific effects against such infections.

INFANT DEATH RATE IN CITIES REACHES 72.6

Last year cities in the birth registration area had a death rate of 72.6 infants per thousand births, reports *Hygeia*. Stonington, Conn., and Winona, Minn., villages of 25,000, had the lowest records, 32 per thousand. New York had the lowest rate of the ten largest cities. 64 deaths per thousand.

Woman's Auxiliary Medical Association of Georgia

OFFICERS

President.....Mrs. C. W. Roberts, Atlanta Parliamentarian.....Mrs. Allen H. Bunce, Atlanta
Vice-President.....Mrs. W. L. Davis, Albany Secretary-Treasurer, Mrs. Marion T. Benson, Atlanta
Honorary President, Mrs. James N. Brawner, Atlanta

District Managers

1st District.....Mrs. Gordon L. Groover, Savannah	7th District.....Mrs. P. O. Chaudron, Cedartown
2nd District.....Mrs. Gordon Chason, Bainbridge	8th District.....Mrs. Paul Holliday, Athens
3rd District.....Mrs. R. H. Pate, Unadilla	9th District.....Mrs. J. H. Downey, Gainesville
4th District.....Mrs. R. S. O'Neal, LaGrange	10th District.....Mrs. W. W. Battey, Sr., Augusta
5th District.....Mrs. Marion C. Pruitt, Atlanta	11th District.....Mrs. B. H. Minchew, Waycross
6th District.....Mrs. C. H. Richardson, Jr., Macon	12th District.....Mrs. T. C. Thompson, Vidalia

COMMITTEES

COMMITTEE ON PROGRAM AND ENTERTAINMENT

Mrs. H. M. Fullilove, Chairman..... Athens
Mrs. Paul Holliday..... Athens
Mrs. W. H. Cabaniss..... Athens
Mrs. R. M. Goss..... Athens

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Mrs. J. Cox Wall, Chairman..... Eastman
Mrs. Chas. C. Hinton..... Macon
Mrs. B. H. Minchew..... Waycross

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Mrs. O. H. Matthews, Chairman..... Atlanta
Mrs. T. F. Abererombie..... Atlanta
Mrs. J. W. Daniel..... Savannah

FINANCE COMMITTEE

Mrs. Nichols Peterson, Chairman..... Tifton
Mrs. A. H. Black..... Thomaston
Mrs. A. S. M. Coleman..... Douglas

COMMITTEE ON ORGANIZATION

Mrs. L. F. Lanier, Chairman..... Rocky Ford

To the Presidents of the County Auxiliaries Medical Association of Georgia—

If we are to be an auxiliary to the Medical Association of Georgia we must work along public health lines. If we are to be effective in this work of educating the public in health matters, we must first educate ourselves. The following outline is suggested for study for County Auxiliaries:

1. Community wide conditions which affect health.
 - (a) Operation of Ellis Health Law, as endorsed by the Medical Association of Georgia.
 - (b) The distribution to the laity of our magazine of health—Hygeia—as published by the American Medical Association.
2. Milk. Milk standards, why necessary, and what milk standard your community needs. How are those needs being met?
3. Housing. Your community housing laws. Housing conditions as they developed under those laws, and as they affect health. Improvement needed.
4. General sanitation and its relation to the death and morbidity rate. Sewage disposal,

sal, water, garbage, flies, street cleaning, etc.

5. Health Promotion. (a) Prenatal Care. (b) Child Welfare. Infant and pre-school Hygiene. This should include medical examination by the family doctor previous to school entrance and correction of remediable physical defects.

SPECIAL NOTICE: State dues should be sent by April 1st to the State Treasurer, Mrs. Marion T. Benson, Springdale Road, Atlanta, Georgia. Also a complete list of your membership for our State Directory, designating your officers. See that this is done at your March meeting.

Wishing you very much success,

Yours very sincerely,

MRS. C. W. ROBERTS,

President, Woman's Auxiliary,
Medical Association of Georgia.

Atlanta.

WASHINGTON COUNTY WOMAN'S AUXILIARY

The organization meeting of the Washington County Women's Auxiliary to the Wash-

ington County Medical Society was held Jan. 18th at the residence of Mrs. S. B. Malone.

The following officers were elected: President, Mrs. J. B. Dillard, of Davisboro; Vice-President, Mrs. O. B. Joiner, of Tennille; Treasurer, Mrs. N. H. Lozier, of Sandersville; Secretary, Mrs. F. B. Rawlings, of Sandersville; Parliamentarian, Mrs. C. D. Redding, of Davisboro; Reporter, Mrs. S. B. Malone, of Sandersville.

Outlines of work and tentative plans were discussed. Meetings were decided to be held at the same time and in the same building as the County Medical Society.

The business session adjourned for a social period during which Mrs. Malone served delicious refreshments.

MRS. F. B. RAWLINGS, Secy.

FEBRUARY MEETING OF THE WASHINGTON COUNTY WOMEN'S AUXILIARY

The Washington County Women's Auxiliary met Wednesday, February 9th, in the Court House in Sandersville. Mrs. J. B. Dillard, the president, presided over this, the second meeting of this auxiliary.

The Constitution and By-Laws Committee reported, and after discussion and a few changes by the auxiliary, the Constitution and By-Laws were adopted. A letter was read from Mrs. L. Lanier, State Organization Chairman, stating that this auxiliary is the first to be organized in the 10th district. A letter was also read from the State President, Mrs. C. W. Roberts.

The president, Mrs. Dillard, announced the following committees: Membership, Mrs. E. S. Peacock, Mrs. F. P. Harbin, Mrs. J. C. C. Wright; Finance: Mrs. O. L. Rogers, Mrs. S. B. Malone, Mrs. E. A. Harris; Constitution and By-Laws: Mrs. F. B. Rawlings, Mrs. O. L. Rogers, Mrs. N. Overby.

The auxiliary decided to invite Mrs. C. W. Roberts, State President, to meet with us later after the auxiliary is more fully organized and the weather is more settled.

The president gave out the following subject for discussion for the next meeting:

"Milk Standards in Our Communities and How They Are Met."

The meeting then adjourned to meet the second Wednesday in March at the Court House.

MRS. F. B. RAWLINGS, Secy.

BOOKS RECEIVED

The Conquest of Disease by Thurman B. Rice, A.M., M.D., Assistant Professor Sanitary Science, Indiana University School of Medicine. Contains 363 pages. Publishers: The Macmillan Company, New York.

Four Thousand Years of Pharmacy. An Outline of History of Pharmacy and the Allied Sciences by Charles H. LaWall, Ph.M., Phar.D., Sc.D., F.R.S.A., Professor of Theory and Practice of Pharmacy and Dean of Philadelphia College of Pharmacy and Science. Contains 665 pages. Publishers: J. B. Lippincott Company, Philadelphia. Price, Cloth \$5.00.

Medical Diagnosis by James M. Anders, M.D., Ph.D., LL.D., Professor of Medicine, Medico-Chirurgical Graduate School of Medicine, University of Pennsylvania: Consulting Physician to the Jewish Hospital, to the Widener Home for Crippled Children, and to the Asylum for the Insane at Norristown, Pennsylvania. Third Edition, Entirely Reset with 555 illustrations. Contains 1422 pages. Publishers: W. B. Saunders Company, West Washington Square, Philadelphia.

The Surgical Clinics of North America (New Jersey Number—December, 1926) (Issued serially, one number every other month.) Volume VI, No. VI, 318 pages; 93 illustrations and complete Index to Volume VI. Per Clinic year (February, 1926 to December, 1926). Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company, Philadelphia and London.

Electrothermic Methods in the Treatment of Neoplastic Diseases, By J. Douglas Morgan, B. A., M. D., Formerly Radiologist, Ross pavilion, Royal Victoria Hospital, Montreal; Instructor in Radiology, University of Pennsylvania Graduate School of Medicine, Philadelphia. Contains 172 pages, illustrated with 36 line and half-tone engravings. Publishers: F. A. Davis Co., 1914-1916 Cherry Street, Philadelphia, Price, Cloth \$2.50 net.

Symptom Diagnosis, Reginal and General by Wilfred M. Barton, A. M., M. D., F. A. C. P. Association professor of medicine, Medical Department of Georgetown University; attending physician Georgetown University Hospital; and Wallace M. Yater, A. B., M. D., Fellow in Medicine, Mayo

Foundation, Rochester; formerly, professor of Physical Diagnosis, Medical Department of Georgetown University; associate attending physician, Garfield Memorial Hospital, Washington, D. C. Contains 851 pages. Publishers: D. Appleton and Company, 35 West 32nd Street, New York City.

NEWS ITEMS

The Twelfth District Medical Society held its semi-annual meeting at Eastman, January 27. Dr. E. C. Thrash, Atlanta, read a paper on "Observation Upon Recent Methods of Diagnosis and Therapy": Dr. T. C. Thompson, Vidalia, "Our Experience with Sacral and Spinal Anesthesia": Dr. R. L. Cater, Macon, "Discussion of Disease of the Respiratory Tract": Dr. Allen H. Bunce, Atlanta, "The Dilution and Concentration Test of Kidney Function": Dr. E. B. Claxton, Dublin, "Torsion of Pedicle of Ovarian Cyst, Report": Dr. O. B. Moye, Soperton, "Scale of Vitality". Dr. V. O. Harvard, President, delivered an address at the banquet given at the Periwinkle.

The Louisiana State Board of Health has gotten out of an Almanac for 1927 in a "Campaign of Information". The almanac contains the usual astronomical data, etc., but the space usually filled with advertising is devoted to hygiene and preventive medicine.

The Randolph County Medical Society held a clinic at the Patterson Hospital in Cuthbert on February 3. Drs. W. A. Mulherin, W. J. Cranston, and H. M. Michel, of the University of Georgia, Medical Department, Augusta, conducted the clinics. The morning was devoted to a pediatric clinic in charge of Dr. Mulherin. A clinic for general medicine was held in the afternoon by Dr. Cranston and followed by an orthopedic clinic in charge of Dr. Michel. Lunch was served at the hospital by Miss Davis and her efficient corps of nurses. Thirty seven local and visiting physicians attended.

Dr. Ralston Lattimore, Savannah, read a paper on "Rest and Exercise in Heart Disease" before the regular meeting of the Chatham County Medical Society February 8.

Dr. H. W. Shaw, Augusta, delivered an address before a meeting of the Pythian club at Augusta recently in the interest of Gracewood school for the feeble minded. He paid high tribute to the work of Dr. Jno. W. Oden of the institution.

Dr. H. G. Mealing, formerly of Augusta, who has been instructor in laboratory diagnosis at Johns Hopkins Medical School since September, 1925 has accepted a similar position with the University

of Georgia, Medical Department, for the year 1927-1928.

Dr. Jay Frank Shamberg, Philadelphia, delivered an address before a special meeting of the Richmond County Medical Society, February 1, at Hotel Richmond, on the subjects of: "Malaria in the Treatment of Neuro-Syphilis" and "Colloidal Lead in the Treatment of Cancer".

Dr. T. C. Thompson, Vidalia, announces an addition of sixteen rooms with connecting baths to the Vidalia hospital. The building will be fire proof.

Dr. William R. Daney, Savannah, has recently been elected to fellowship in the American College of Physicians.

Dr. Thomas Bolling Gay, Athens, resigned as pediatrician for the Athens Child Health demonstration and Dr. Edward D. Andrews, Columbia, S. C., has been appointed to succeed him.

H. M. Patterson & Son of Atlanta, announce that a new motor coach ambulance has been added to their equipment. This ambulance was secured for the convenience of the public and especially designed for the ultra-comfort, convenience and safety of the patient. It is equipped with Westinghouse Shock Absorbers, extra large elliptic springs, aluminum disc wheels electric heater, fan, and Bomgardner hospital cot. It also has two folding auxiliary seats furnished for accompanying relatives or friends.

The organization has given careful thought to the meeting of patients arriving in Pullmans at the railroad stations, and does not believe that the equipment can be excelled for careful handling of the sick.

The Ware County Medical Society held a clinic for the backward and under nourished children at Waycross on January 14. Dr. W. A. Mulherin and Dr. Paul Eaton, Augusta, members of the faculty of the University of Georgia, Department of Medicine, were present and assisted in the work.

Dr. Joseph Riviere, of France, was a recent guest of Dr. and Mrs. George T. Brown, Atlanta.

Dr. L. G. Hardman, Commerce, governor-elect of Georgia, delivered an address at the annual meeting of the Spalding County Medical Society held at Griffin on January 18.

Dr. J. P. Kennedy, City Health Officer, Atlanta, held free baby clinics at the following places: January 19 at J. C. Harris school and Fulton Bag and Cotton Mills; January 20 at John Barclay nursery; January 21 at Kirkwood school.

The Heard County Medical Society met at Franklin on February 1.

Dr. H. Harvey Payne, formerly associated with Dr. DeLos Hill, announces the opening of his office at 617-619 Medical Arts Building, Atlanta. His practice will be limited to diseases of children.

The medical and surgical staff of the Georgia Baptist Hospital, Atlanta, were entertained January 18 at the annual banquet of the hospital.

Dr. J. R. Graves a prominent physician of middle Georgia has returned to his former home in Zebulon after residing last year in Chipley, Harris County. He has been a member of the Association for thirty years.

On February 9th the members of the Burke County Medical Society entertained their wives and sweethearts at a luncheon at The Anthony Wayne Hotel, Waynesboro. The program was in the hands of the ladies. Mrs. W. R. Lowe, Midville, read a paper on "The Doctor as a Husband". Mrs. W. C. McCarver, Vidette, on "The Doctor's Wife".

The Eyesight Conservation Council of America, New York, is making an investigation of the illumination of motion picture theaters.

The seventh annual meeting of the Surgical Association of The Atlanta and West Point Railroad Company, The Western Railway of Alabama, Georgia Railroad, Elberton and Eastern Railroad, was held at the Henry Grady Hotel, Atlanta, February 11. The following papers were read: Dr. Geo. E. Blue, Montgomery, Alabama, "Physical Examinations"; Dr. S. R. Benedict, Birmingham, Alabama, "Fractures of the Calcaneus"; Dr. Lawson Thornton, Atlanta, "Daily Problems of the Railroad Surgeon in the Light of an Orthopedic Surgeon"; Dr. J. R. Garner, Chief Surgeon, Atlanta, "Some General Considerations of the Chief Surgeon"; Dr. Cosby Swanson, Atlanta, "Parasitic Skin Diseases"; Dr. Willis C. Campbell, Memphis, Tenn., "The Onlay Graft in Un-United Fractures of Long Bones"; Dr. Glenville Giddings, Atlanta, "Clinical Comparison Between Some Normal and Pathological Conditions".

Dr. T. E. Williams, formerly of Waycross and a member of the Ware County Medical Society, has removed to Americus and is associated with Drs. Herschel A. Smith and Emmett B. Anderson.

The Public Health Nurse Association is conducting the following free health clinics in Columbus each week. Monday afternoon, child welfare clinic, by Dr. Mercer Blanchard and Miss Nannie Posse at the Salvation Army Hall, Wednesday afternoon, child welfare clinic at Good Will Center, by Dr. Seth Floyd, Misses Patterson and Posse: Thursday afternoon, prenatal clinic at Hospital Annex, by Dr. R. B. Crichton and Miss Posse: Friday afternoon, tuberculosis clinic at court house by Dr. J. N. Wallis and Miss Pauline Bevis.

Emory Alumni Clinic is announced for the week beginning June 6 by President Marion Benson and Secretary M. C. Pruitt.

The St. Louis Bulletin of Commerce of January 5 carries an editorial reference to the products of the Hanger Artificial Limb Company, Inc., of that city, stating that they are free from the usual discomforts and annoyances of such appliances.

REMOVAL NOTICES

Dr. H. C. Sauls announces the removal of his offices to suite 1010 Medical Arts Building, Atlanta.

Dr. J. E. Paullin announces the removal of his offices to suite 1010 Medical Arts Building, Atlanta.

Dr. J. C. McRae announces the removal of his offices to suite 1111 Medical Arts Building, Atlanta.

Dr. F. W. McRae announces the removal of his offices to suite 1111 Medical Arts Building, Atlanta.

Dr. Champneys H. Holmes announces the removal of his offices to suite 22 Doctors Building, 436 Peachtree Street, Atlanta.

Dr. M. T. Harrison announces the removal of his offices to suite 1111 Medical Arts Building, Atlanta.

Dr. H. M. Bowcock announces the removal of his offices to suite 1010 Medical Arts Building, Atlanta.

Dr. Patrick H. Jones announces the removal of his offices to suite 1209 Medical Arts Building, Atlanta.

Dr. Wm. E. Campbell and Dr. Wm. E. Campbell, Jr., announce the the removal of their office to suite 1202 Medical Arts Building, Atlanta.

Dr. V. W. Osborne announces the removal of his offices to 427 Moreland Avenue, N.E., Atlanta.

Dr. Jas. F. Pitman announces the removal of his offices to the Medical Arts Building, Atlanta.

Dr. D. L. Hill announces the removal of his offices to suite 1206 Medical Arts Building, Atlanta.

Dr. Taylor S. Burgess announces the opening of his offices in suite 1111 Medical Arts Building, Atlanta, practice limited to diseases of the ear, nose and throat.

Dr. Jack W. Jones announces the removal of his offices to suite 711 Medical Arts Building, Atlanta.

Dr. Wm. W. Young announces the removal of his offices to suite 22 Doctors Building, Atlanta.

Dr. L. H. Muse announces the removal of his offices to suite 805 Medical Arts Building, Atlanta.

Dr. Hamilton C. Cook, formerly of Bremen, has removed to Cedartown where he will continue the practice of his profession.

Dr. Calhoun McDougall announces the removal of his offices to suite 711 Medical Arts Building, Atlanta.

Dr. L. Sage Hardin announces the removal of his offices to the Medical Arts Building, Atlanta.

Dr. Wm N. Adkins announces the removal of his offices to the Medical Arts Building, Atlanta.

Dr. A. J. Ayers announces the removal of his offices to suite 1109 Medical Arts Building, Atlanta.

Dr. Wm W. Anderson announces the removal of his offices to suite 515 Medical Arts Building, Atlanta.

Dr. Harle L. Sparks announces the removal of his offices to suite 805 Medical Arts Building, Atlanta.

OBITUARY

Dr. Louis M. Hobgood, Fairburn, died January 23, 1927 in an Atlanta sanitarium after a brief illness. He was born in 1852 and graduated from the Southern Medical College, Atlanta, in 1892 and practiced medicine continuously until his last illness. Dr. Hobgood was formerly health officer of Campbell county and a member of the board of education of Fairburn. He was an active worker for the civic and business interest of his home town, vice-president of the Fairburn Banking Company; member of the Odd Fellows, Masons, Campbell County Medical Society, Medical Association of Georgia, and the Methodist church.

He is survived by his widow, six daughters, Mrs. G. L. McNeil, Misses Jimmie Lou, Mary and Gladys Hobgood, all of Fairburn; Mrs. T. R. Luck, Carrollton; Mrs. A. J. Greene, Avon Park, Florida; and one son, L. M. Hobgood, Jr., a student of Oglethorpe University.

Dr. Benjamin S. Purse, Savannah, died January 19, 1927. He was born in Savannah, August 6, 1842. Dr. Purse graduated from the Savannah Medical College in 1870 and later was elected teacher and demonstrator of anatomy. He was surgeon general on the staff of General M. D. Vance, commander-in-chief of the United Confederate Veterans and one of the most active and widely known physicians of that section. He owned the first thermometer in Savannah which is now in the possession of his relatives. Dr. Purse was at one time mayor of Savannah. He was a member of the Masonic fraternity and one of the oldest members of the First Baptist church.

Dr. Henry Paden Lyon, 375 North Avenue, Atlanta, died at a private sanitarium January 29, 1927. He was born in 1890 and graduated from the Atlanta School of Medicine in 1912. Dr. Lyon was a member of the Masonic lodge, Shrine, Fulton County Medical Society and the Medical Association of Georgia. He is survived by his widow, one son, Jack Lyon; his parents, Dr. and Mrs. G. T. Lyon; three brothers, L. L., A. T. and H. C. Lyon, all of Atlanta; two sisters, Mrs. K.

A. Conway, Atlanta, and Mrs. C. C. Foster, Canton.

Dr. Robert H. Smith, Watkinsville, died at his home January 22, 1927. He was born in Oglethorpe County in 1862. Dr. Smith moved to Watkinsville about twenty years ago and became one of the best known and most beloved citizens of that community. He was a member of the Masonic fraternity. He is survived by his widow, two daughters; Misses Jane and Sara Smith, two sons, John and F. C. Smith, all of Watkinsville; two sisters, Mrs. Young, of Union Point, and Mrs. Wright, of Atlanta; one brother, Mr. Ed Smith, of Comer.

Funeral services were conducted by Dr. E. L. Hill, pastor of the First Presbyterian church of Athens and interment in the Watkinsville cemetery.

Dr. William E. Wood, Dalton, died at his home on February 7, 1927. He was born in Banks County, Georgia, July 8, 1864. Dr. Wood graduated from the University of Georgia, Medical Department, Augusta, in 1890 and later studied at the College of Physicians and Surgeons of the Western District of New York. He moved to Dalton in 1893 and practiced his profession in that community until his death. Dr. Wood was at times a member of the board of education, council and mayor of Dalton and was a delegate for the state at large to the Democratic conventions held at St. Louis, San Francisco, and New York City. He was a member of the Whitfield County Medical Society and the Medical Association of Georgia. He is survived by one daughter, Mrs. F. F. Baker, Jr., Atlanta; two sons, Earl Wood, Atlanta, and Harry Wood, Dalton; two brothers, James M. and Arthur W. Wood, Commerce; one sister, Mrs. Belle Dowdy, Commerce. Rev. Frank K. Sims conducted the funeral services from the Presbyterian church and interment was in the Westview cemetery.

VACANCIES IN VETERANS' HOSPITALS

Physiotherapy and Occupational Therapy
Aides Urgently Needed

Washington, D. C., February . . . , 1927—The United States Civil Service Commission states that a number of hospitals of the Veterans' Bureau are sorely in need of occupational therapy aides in arts and crafts, agriculture, and trades and industrial occupations, and also physiotherapy aides, pupil aides, and assistants. These workers are needed in considerable numbers in connection with the rehabilitation of disabled soldiers and sailors.

It is stated that examinations for these positions are now open. Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or from the secretary of the United States Civil Service Board at the post office in any city.

THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA

PUBLISHED MONTHLY under direction of the Council

Volume XVI

Atlanta, Ga., April 1927

No. 4

Original Articles

CLASSIFICATION OF THYROID DISEASES, TREATMENT AND END-RESULTS*

T. C. THOMPSON, M.D.

Vidalia

There is much confusion over the classification, diagnosis and treatment of the various forms of goiter. The study is rather complexed, the usual text-book classification is confusing, therefore, I think the most simple classification is essential. Plummer's classification is the most simple to understand. He has classified them according to their structural, functional, etiologic and clinical characteristics into the following types: Colloid goiter, adenoma without hyperthyroidism, or I might say, not yet hyperthyroidism, adenoma with hyperthyroidism, exophthalmic goiter, myxedema, cretinism, myxedema of childhood, thyroiditis and malignancy. The first four types, colloid goiter, adenoma with and without hyperthyroidism, exophthalmic goiters and, I might add, malignancy, are the most important as these are the most common types. Especially is this true from a surgical standpoint. According to Charles H. Mayo, 99 per cent of all operations on thyroid glands at The Mayo Clinic are of these four types. Time will not permit a review of the various other forms of thyroid diseases so we will

eliminate the other four types, myxedema, cretinism, myxedema of childhood and thyroiditis. Much depends on the proper classification and management of the various types as to the mortality you may have.

Colloid goiter usually appears about the age of puberty and is seen in about sixty per cent of young girls in some of the goiter districts of the West. Of course it is not as common in the South. The deficiency of iodine in the soil and drinking water is considered a factor in the etiology of this type of goiter. By this deficiency, there is an excessive demand on the thyroid gland for thyroxine. The physical and mental strain caused by modern scholastic requirements and the nervous strain on the reproductive system at puberty is also a factor in the etiology.

The common type of colloid goiter with its symmetrical enlargement with no physical symptoms is easily diagnosed but the vascular type with thrills and tachycardia, nervousness and sometimes pseudo-exophthalmos is hard to differentiate from exophthalmic goiter; but the absence of quadriceps loss, severe loss in weight and a normal metabolic rate confirms the diagnosis.

Adenoma without hyperthyroidism or not yet hyperthyroidism, rarely occurs before the age of twenty-five unless brought on by the use of iodine medication. The fact that much interest has been aroused in the treatment of goiter with iodine has greatly increased the number of cases of iodine hyperthyroidism.

*Read before the Medical Association of Georgia, Albany, Ga., May 14, 1926.

Iodin is considered a specific in the treatment and prevention of colloid goiters providing no adenomas are present. If there is any doubt, iodine should not be given as you may convert your simple adenoma into a very toxic one.

Adenomas are more frequent in women than men. It is a distinct tumor mass, the gland is not symmetrically enlarged as in the colloid or exophthalmic goiter but a distinct nodular mass can be felt in one or more lobes of the gland. Adenoma without hyperthyroidism is attended with no symptoms whatever except in the very large adenoma you may have pressure symptoms.

Adenoma is usually present fourteen to sixteen years before they become toxic or before the toxic symptoms are manifested. The onset of hyperthyroidism is more gradual than in exophthalmic goiter.

The patient usually gives a history of having had an enlargement of the gland existing since puberty, never giving any trouble, but noticed after about the age of twenty-five that it became nodular. Never any symptoms until about sixteen years after the mass appeared.

A. S. Jackson's conclusion after a study of 4,000 cases states that one out of every four becomes toxic before the patient reaches fifty years of age and that one out of five adenomas develop a substernal projection, also that five women have adenomatous thyroids to every man that has one.

The slow, progressive hyperthyroidism causes serious and sometimes permanent damage to the heart.

In adenoma with hyperthyroidism you do not have an acute crisis, the usual metabolic rate averages plus 38 per cent. Exophthalmos is not seen and thrills and bruits are rare. The average age is forty-four years, and you have a high diastolic blood pressure. You also have, as in exophthalmic goiter, loss of weight, tremor, nervousness, moist skin, tachycardia and palliation.

The exophthalmic goiter has a rapid onset and is more common in youth, the average age being about twenty-six years.

Exophthalmos usually occurs about three months after the onset. You have acute pe-

riods of exacerbation and remissions. During the exacerbation all symptoms are intensified, thrills and bruits, loss in weight, excessive appetite. The pulse pressure is high and a low diastolic pressure is an important diagnostic point. There is a high basal metabolic rate and fever is usually present during a crisis. It is a constitutional disease apparently due to an excessive, and also abnormal secretion, showing pathologically diffuse parenchymatous hypertrophy and hyperplasia.

Plummer, Kendall and Boothby believe there is in exophthalmic goiter a catalytic action of thyroxin and that this causes the syndrome. When iodine is administered, this active principle of thyroxin receives another molecule, which is needed to change it to normal thyroxin.

Bainbridge of New York states that the internal or medical treatment of goiter has failed to show results even approaching those realized by the skilled surgeon. Permanent cures by the use of medicine, X-Ray or radium in the more aggravated forms of the disease are very rare. On the other hand, with modern technique and proper pre-operative and post-operative care, surgical mortality is exceedingly small, in fact, less than in any other field of major surgery. Cures are obtained in 75 to 85 per cent in the more aggravated forms and marked improvement in 10 to 25 per cent. Five per cent seem not to yield to any kind of treatment. The fact is undoubted that exophthalmic goiter is cured spontaneously in some instances without treatment of any kind. It is well to thoroughly consider and understand the natural course of the disease and bear in mind that all symptoms may disappear and leave almost no trace of the disease. Usually after a certain length of time the symptoms recur and continue progressively to another climax.

Frank Smithies states that 90 per cent of exophthalmic goiters untreated, die within four years following the appearance of toxic signs. The average patient with toxic adenoma lives twenty-two years after the appearance of the adenoma and nine years after hyperthyroidism develops or becomes evident.

The treatment of colloid goiter should be begun early, as adenomas tend to develop in

neglected cases. Proper treatment instigated early is a prophylactic treatment for adenoma, as adenomas develop as a form of compensatory development. There is not much difference of opinion in the profession as to the treatment of the first three types. Colloid goiter should be treated by medical and hygienic measures. Iodin in the ordinary types give very satisfactory results and should be given in small doses early in the disease, over a long period of time. In the vascular type thyroid extract or thyroxin seems to give better results than the iodine.

All foci of infection should be found and corrected or removed in all types of goiter. Iodin is a safe prophylactic treatment to administer to a patient without goiter to prevent its development, especially in young girls.

We are indebted to Kocher for first extensively collecting and presenting the evidence that the indiscriminate use of iodine to patients having goiter is attended with danger. Everyone interested in the treatment of goiter is fully aware of his warning and has seen many confirmations of the fact.

Malignancy does not occur in exophthalmic goiter but always occurs in the adenoma. Adenoma is a forerunner of cancer. It occurred in four out of every one hundred cases at Jackson's clinic, this per cent is probably higher than the report from other clinics. Dr. Mayo asserts that cancer when clinically diagnosed is always 100 per cent mortality, therefore, according to these statistics practically every case of cancer of the thyroid gland, clinically diagnosed, causes death. This is especially true if the cancer has pierced the capsule of the thyroid gland, therefore, we should operate every adenoma before there is a possibility of malignancy.

Surgery offers 100 per cent cure and if operated before they become toxic the mortality is negligible. In my opinion, X-Ray and radium have no place in the treatment of simple adenoma or adenoma with hyperthyroidism. As a rule they later come to the surgeon in much worse condition than before treatment with X-Ray or radium. The heart muscle and kidneys are damaged to such an extent that surgery can be done only with great risk, the thyroid gland being adhered to the capsule, making it difficult for the sur-

geon to remove, and you may have also damaged your parathyroid glands. If all adenomas were removed before they become cancerous, cancer of the thyroid would be unknown. Every medical man and surgeon, too, advocate the removal of pre-cancerous conditions before they become cancerous, then, if cancer develops from an adenoma, why not advise the removal of the gland, the pre-cancerous condition, just as we advise the removal of all pre-cancerous conditions in other parts of the body. Adenoma with and without hyperthyroidism should be operated as soon as discovered as they do not yield to spontaneous cure or to non-operative treatment and delays lead to structural damage to the heart, kidneys and other vital organs, and may also develop into cancer.

The use of X-Ray has long been advocated in the treatment of exophthalmic goiter and more recently the application of radium has been recommended, the theory being that a sclerosis is produced which lessens the glandular activity. The advantages claimed for X-Ray and radium method of treatment are that it avoids an operation and is attended with less danger to life. The disadvantages are the increased length of invalidism, the greater difficulty of operation if surgery is ultimately necessary, the dangers of myxedema and X-Ray burns and also a possibility of damaging the parathyroid glands and the liability of treating colloid or adenomatous goiters, which are not benefitted with X-Ray or radium.

If cancer has advanced to the stage where a clinical diagnosis is made, then X-Ray and radium would probably be the best method of treatment, as surgery is not indicated in those advanced cases. Of course this is attended with some danger, as in about two weeks after X-Ray or radium treatment oedema and strangulation may occur.

The most important pre-operative measures is the choice of time of operation and method of anaesthesia. Every case is a case unto itself and anaesthesia I feel, should be suited to the individual case. The tendency for several years has been more and more towards the use of local anaesthesia, supplemented in some cases by the use of gas or ether. The method I use now for thyroidec-

tomy is that described by Meeker and Hundling in *Surgery, Gynecology and Obstetrics* for June, 1924. It consists of doing a paravertebral cervical block of the 2nd, 3rd, and 4th cervical nerves on each side by the lateral oblique method. One-half per cent and one per cent solutions of novocaine are the anesthetic solutions I prefer. Adrenalin is added, but not in toxic or exophthalmic goiter.

Plummer proved that by the use of lugol solution of iodine it is possible to render the most extreme case of exophthalmic goiter safe for surgery in two or three weeks. Not only has iodine removed the greater part of the operative risk from those patients who are obviously in bad condition but it has also entirely prevented that most disconcerting of all surgical deaths, that occurring in what appears to be a mild case in which no special risk is anticipated.

Pemberton's very low mortality rate confirms Plummer's contention that post-operative crisis can be prevented in most cases. The mass of evidence now available indicates that iodine can only be recognized as a method by which operative mortality can be reduced and not as a curative measure. In some case, for some reason, exophthalmic goiter patients do not respond to the ordinary ten drops of Lugol's solution three times a day, making it necessary to give them much larger doses. Especially is it best to give them much larger doses the day before the thyroidectomy and the day afterwards. As high as fifty to sixty minims may be given by mouth or by rectum twice a day.

The measure of the success of the surgical treatment of exophthalmic goiter is in direct proportion to the amount of tissue removed. The relapses or partial relief of symptoms or recurrences, must be charged to the failure to remove enough tissue. This can be determined alone by experience. Some advocate the removal of four-fifths of the gland, some five-sixths but if you leave a thin layer of thyroid tissue along the line of the capsule there will be quite enough for the body economy. The mortality from surgery is far below that of any other method of treatment and every year the mortality is lowered. The degree of recovery depends on whether at the time of opera-

tion the ravages of the diseases has damaged the vital organs beyond repair.

Quoting the exact words of our distinguished George W. Crile, "A diagnosis of exophthalmic goiter indicates surgery. Our experience has been that the best form of treatment for the exophthalmic goiter is operation, and we have had the advantage here of seeing large numbers of cases which have had every advantage such as trips to the seashore or the mountains, long rest periods, X-Ray and radium and all sorts of medication and we feel that the most definite results are obtained following a thyroidectomy. I feel very strongly that when the diagnosis of adenoma of the thyroid is made, it should be removed, inasmuch as it is an adenoma and these often times become malignant between the ages of forty-five and sixty. Furthermore, it may at any time become hyperactive, and should, therefore be removed.

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DISCUSSION ON PAPER OF DR. THOMPSON

Dr. J. W. Palmer, Ailey: I consider the subject of goiter surgical and not medical, and feel somewhat out of place in trying to discuss it, but I want particularly to thank Dr. Thompson for his able paper. No one should attempt to treat or operate upon goiter unless he has made it a special study, and mastered the subject. Dr. Thompson shows that he has done that. I consider him one of the best authorities in the State.

One thing I wish to particularly thank him for is his classification of the types of goiter, because he includes so few types. I think there should be a law that every man who reads a paper and adds any classification in goiter should be penalized by having to memorize all those that have already been classified. Goiter is a big field and no man can cover it in fifteen minutes, or discuss it in five minutes. In a word, goiter means that the thyroid gland is not functioning properly, and that the function of the thyroid means control in the iodine metabolism in the body.

In discussing the treatment of goiter it is necessary to know what is the cause but this, so far as we know, has never definitely been determined. Some have thought that perhaps it was due to basal control of the thyroid gland, and failure in this control. Others think it is due to autointoxication, infectious absorption, or iodine deficiency. The belief regarding focal infection has been so strong that a great many have associated rheumatism with a diseased thyroid gland, on the ground that it is due to infectious absorption. The question has been asked, why do more women have goiter than men, and those on this line of theory say it is due to focal infection through the cervix uteri.

In the treatment of goiter, before any surgical operation is performed for goiter it would be well that all sources of infection be looked after and removed. This will do no harm, and will make goiter operation safer.

Some say there is more goiter now than formerly, while others say it is no more common but is more easily discovered because women are now wearing low necked dresses.

In the treatment of goiter, as you observed from Dr. Thompson's paper, if a man does not understand what he is doing, what he is aiming for, it will be found that what is meat for one is poison for another. What would do good in one type of goiter would be very injurious or poisonous in another. In adolescent or colloid goiter, and perhaps in the non-toxic adenomas, we get decidedly good results

from iodine in the form of Lugol's solution. We know that in all cases of hyperthyroidism we should know the basal metabolic rate before giving any treatment. The usual rule is in hypothyroidism to give thyroxine. In hyperthyroidism the treatment which has been suggested is a preparation called antithyroxine, which is given in teaspoonful doses three times a day. They also advocate large doses of bismuth, with rest, sedatives and proper diet.

Personally, I believe that goiter is always a surgical condition, and that when you treat it medically you are going a long way from home. We use these medical measures temporarily for relief. If a man uses radium he will get results from that, and the roentgenologist will get results from the X-Ray without resorting to operation. The only difference between the treatment given by the general practitioner and those using radium and roentgenotherapy is that those men get a much larger fee than we get for giving drugs.

Dr. L. C. Allen, Hoeshton: I think the first thing in goiter is to classify if possible. Wherever there is an adenoma it always means surgery. Those cases should not receive iodine. It is very easy, as I know by considerable experience, to produce hyperthyroidism in a non-toxic adenoma by the administration of iodine. In this type of goiter there is no ground for debate. It is surgery in every instance.

The colloid goiter in the young person, as a rule, means iodine.

The toxic exophthalmic goiter means a problem. It is a problem for you to study and try to solve. There is no specific treatment for toxic exophthalmic goiter that will apply in every case. If surgery was an absolutely certain cure we would turn the patients over to the surgeons every time, but surgery does not cure all the cases. The amount of the thyroid gland that should be removed is a matter of judgment. Sometimes the surgeon removes too much and we have a case of myxedema on our hands. Very often the patients will get along well for perhaps twelve months, and then develop an acute toxic condition again. I am talking from actual experience. What to do for any given case of toxic exophthalmic goiter is always a question to decide. Some cases should undoubtedly be operated on, perhaps the majority of them. Some cases are not suitable for surgery, and some patients will decline surgery. In many of these cases the Roentgen-ray or radium is the treatment of choice, and some men claim that the results from the roentgenotherapy will compare favorably with results from surgery.

Dr. C. H. Richardson, Jr., Macon: I am sure we are indebted to Dr. Thompson for bringing this paper before us, for we are a little apt to forget many of the details of this subject. I think the interesting types of goiter are; first, the colloid, which occurs in adolescence and which we may regard as the resting type. Then the adenoma, which may be benign or toxic, but which often becomes toxic at a later date. In the simple adenomas there is a hyperplasia of the gland. When it becomes toxic there is a hypersecretion in the gland. These cases practically always become toxic and they occur in the older persons. This is a strong reason for removing the adenoma in the early stage, and not waiting until the cardiac system is damaged beyond repair.

Then we have the exophthalmic goiter, where in addition to the hypersecretion we have an abnormal activity of the gland. Someone has described this activity of the gland in exophthalmic goiter as being due to an effort on the part of the gland to find sufficient iodine. In that type iodine is of benefit over a temporary period. That is probably the reason why we have the abnormal activity of the gland, and when this is stopped the gland turns back to the resting state temporarily, but exophthalmic goiter cannot be cured with iodine. We can only put the gland in a better state by this means, and cut down its abnormal activity.

Dr. Julian K. Quattlebaum, Savannah: The question always arises about recurrence. Adenomata do not recur. These supposed recurrences are due to portions that were overlooked at the time of operation. In some of these cases the disease seems to be limited to one lobe until we get in. Often after having opened the capsule of the other lobe you will find it shot through with small adenomata, and later on these may develop with the same change in symptoms. Myxedema results quite often from removing too much of the gland, but I think it results just as often from the continued process of thyroiditis. This is a good thing to recognize at the time of operation. If the inflammatory process continues it will destroy the rest of the gland, and myxedema results.

Dr. C. W. Roberts, Atlanta: I think probably our conception of the incidence of goitre has been based too much upon the expectation of increased size in the patient's neck. Physicians usually think of goitre in Georgia as being rare. Even on the basis of obviously enlarged necks the close observer will have to change his opinion. The point I wish to stress, however, concerns a large class, namely, those who are suffering systemic symptoms of more

or less disabling nature caused either by excessive or hypoactivity of the gland, and without much, if any, increase in the size of the neck. If the goitre problem is approached from this concept, Georgia will be found to have its prorata of sufferers from this malady.

There are only three reasons which occur to me why individuals with goitrous conditions should concern us at all, and the results we will obtain in the treatment of such individuals will be in direct ratio to the time the condition was discovered and the skill exemplified in making the proper classification. Our best results must come from the application of the principle of preventive medicine.

Of the three reasons which bring patients for consultation the most common perhaps concerns the question of cosmetics. They do not like the increasing size of the neck. This is frequently the only complaint. An operation is sought largely in the interest of personal appearance. They want something done about it, and we make the mistake of letting the patient select the method of procedure and too frequently operate for no better reason than to reduce the neck to a normal size. These patients usually belong to the group of young women presenting hypertrophy of the thyroid in response to the physiologic demand accompanying adolescence. Operation in these cases will fail. There is usually rapid recurrence or a worse state of health. I need not remind you that medical treatment in this group intelligently supervised will bring about a cure in a high percentage of cases.

The next group presents sufferers who, because of large colloid growth but more commonly adenomatous change in the gland, are complaining of pressure symptoms. We agree that in these cases surgery is indicated.

The third reason concerns the toxic class, and here again the result will depend upon the time the patient is brought under treatment. Frequently these patients do not complain primarily of the neck. Often the symptoms are those associated with incompetent heart and kidney disease, such as edema of the extremities, shortness of breath, loss of weight, loss of strength, etc. There may or may not be signs of an enlarged thyroid gland.

We can get good results in the treatment of goitre. Attention should be focused upon measures which will prevent goitre development or forestall the gross changes seen in late adenomas and neglected hyperplastic glands. As has been said several times, we must suspect goitre before it is evident. If the principles Dr. Thompson has brought up are followed good results may be expected.

I wish to take issue with the idea that goitre is a surgical problem alone. The profession as a whole must consider the question, and there is a great work to be done along the line of preventive medicine. It should always be borne in mind that in dealing with disease by surgical means we are working in most cases on results of long existing pathology.

Dr. R. L. Miller, Waynesboro: I was glad to hear Dr. Roberts say what he did just now, that there is a medical side to goiter. We all know the adage "An ounce of prevention is worth a pound of cure" applies, probably, more in the cases of hyperthyroidism than any other disease we know. I think a great majority of patients can be saved operation if we internists will do our part in the management of these cases. I have had very happy results from a simple line of treatment. I make these patients rest, "give water externally, internally and eternally," as old Dr. Campbell used to say. I put them on belladonna in small doses to begin with, gradually increasing to the point of full tolerance. In contradistinction to roentgenotherapy and radium I believe that exposing the goiter to the direct rays of the sun for one hour every day will give better results.

PROSTATIC SURGERY*

J. W. SHEARHOUSE, M.D.
Savannah

There is no definitely known cause of prostatic hypertrophy, although there are many theories. Among these was the supposition that the condition was due to an error in the glands of internal secretion, and, it was the vogue, for a while, to do castrations on prostaties, with the idea in mind that after the testes were out, the prostate would return to its normal size. This worked out all right in experimenting on animals, but it had no effect on the old men with enlarged prostates who lost their testicles and kept their hypertrophy.

Another theory, advanced by Velpeau, is that the prostate is analogous with the uterus, and that hypertrophy of the gland corresponds with fibroid enlargement of the uterus. This theory has been exploded by recognition of the fact that the prostate is not analogous to the uterus in development, structure, nor

function. The last theory I shall mention was brought forward years ago by Virchow, in his work on tumors, and, at the present day, is the theory most generally accepted: that prostatic hypertrophy is due to a chronic inflammation of the gland which has extended over a number of years, and, that this infection, which may have been gonorrheal or not gonorrheal, but due to some form of sexual indulgences producing infection in the gland, and, that this low grade infection, extending over a period of years produces sufficient irritation to cause the production of newly formed tissue.

Pathologically we meet with two types of this condition, the adenomatous, which is the most common form; and the other, the fibroid prostate. In the former we get a tremendous increase in the size of the gland from hypertrophy of the glandular elements, and apparently, no increase in the connective tissue. In the fibroid prostates, which are generally smaller than the normal prostate, there is an increase in the connective tissue element, with resulting contraction and fibrosis of the gland. So that the glandular elements have been so compressed they have atrophied to a large extent, and have left the small sclerotic gland.

Prostatic hypertrophy seldom develops in men under fifty years of age, and is more common after sixty. Sir Henry Thompson states that hypertrophy exists in 34 per cent of men at and above sixty years of age, and, that it produces manifest symptoms in about 15 or 16 per cent of the cases when it is enlarged.

As to the frequency of occurrence in the different races, the condition is comparatively rare in the negro, and most common among the natives of India and of Turkey.

As to the symptoms of this condition, the one most frequently complained of is frequency of urination, which is mostly nocturnal, in contradistinction to the frequency caused by stone, which is diurnal, for, when the patient is recumbent, and the stone not moving around and coming in contact with the vesical neck, he is comfortable.

The prostate also early complains of loss in the force of the urinary stream; the normal peribolic curve is lost, and instead the urine passes in a vertical direction. Also, there is

*Read by title before the Medical Association of Georgia, Albany, Ga., May 14, 1926.

dribbling at the end of the act, so that the shoes and clothing often get wet. There may be occasional hematuria from venous engorgement, which may be only slight and terminal, or it may be so profuse as to require immediate cystotomy for control. In other cases the patient does not notice anything until he suddenly has acute retention, and is not able to pass any urine at all. This retention is generally due to some excess in sexual indulgences, alcoholism, or undue exposure to heat or cold, causing a venous congestion in the prostatic urethra with resulting swelling and blocking of the canal.

In some cases there are symptoms of infection due to decomposition of the stagnant residual urine, which infects the bladder and may cause an almost intolerable cystitis, or, the infection is liable to pass to the kidney pelves from back pressure. Sexual symptoms are often present, and usually there is a loss of sexual power. In other cases, from the constant irritation of the prostatic urethra there may develop priapism, or, a constant sexual desire may be present.

Diagnosis: In any man, fifty years of age or older, who complains of frequency of urination, incontinence, or vesical pain, the prostate is the first thing to be thought of. In making a diagnosis it is important to get a good history, but a thorough physical examination is far more important. The first thing is a general examination, including the condition of the heart and lungs, and the arteries. Then palpate above the pubes for the presence of a distended bladder. The patient then voids his urine, and a soft rubber catheter, or a fibrous one, may have to be used with a prostatic curve to determine the amount of residual urine, which is the most important thing in physical findings. Next, the prostate should be palpated per rectum, and in adenomatous enlargements often one feels a very large gland, and it is often impossible for the examining finger to reach the upper margin. Again, the rectal examination may reveal a prostate that is fixed, and of a stony hardness, and nodular, which is so characteristic of carcinoma. Or again, the rectal examination may not reveal anything, for the growth may be intra vesical.

The most important agent in the diagnosis is the cystoscope, for this instrument reveals a word of information that cannot be obtained in any other way, and, it is a method that should be used routinely, as the exact location of the hypertrophy can be ascertained. The presence or absence of stones, which are present in fully one-fourth of the cases, and, are so easily overlooked at operation, unless their presence beforehand is known. Tumors can be seen. The presence of diverticulum, is a rather frequent occurrence. Also, in tabes, the cystoscopic picture is quite characteristic, and this is a condition that often confuses one in making a diagnosis.

The only treatment of this condition that I shall discuss is the operative treatment. The operation of choice is the two-stage supra pubic prostatectomy. The first stage should always be done under local anesthesia, using novocaine, and a de pezzler catheter left in situ for drainage. There is practically no shock at all to this procedure, and the patient should be propped up in bed the following day, and out of bed on the third day. The bladder should then be drained until the patient is in good physical condition. And not until then should the prostate be enucleated. The most reliable information to determine this is personal observation of the patient, his general condition, how his heart responds, and the blood pressure, etc.

The next most important thing is the blood chemistry, which reveals a world of information as to how the patient is responding to drainage. The phthalein test is also useful, but not nearly so reliable as a blood chemistry.

I believe the secret in a successful operation is long drainage, and, that as a rule, the patients are not drained long enough to get in good physical condition, for we must remember that we are dealing with feeble old men, whose myocardiums and arteries are damaged, and who most always have damaged kidneys from back pressure, and that they don't respond to treatment so readily. I believe, as a rule, if, instead of allowing a week or ten days, we would allow a month, or longer in some cases, the mortality would be lower.

The second stage should be done under sacral anesthesia, doing a quick operation. The prostatic pouch in all cases should be packed with vaseline gauze to control bleeding.

The post-operative treatment consists mainly in forcing fluids, and all the packing should be out on the fifth day, with the patient out of bed as soon as possible. A large sound should be passed at the end of the third week to prevent undue contraction of the prostatic capsule.

The prostate should always be subjected to a thorough pathological examination, for about seven per cent of them are malignant.

Resume:

- (1) Cystoscopic diagnosis.
- (2) Long drainage.
- (3) Anesthetic.
- (4) Always pack.
- (5) Pass sounds afterwards.
- (6) Examine prostate pathologically.

THE TREATMENT OF DIABETIC COMA*

T. E. ROGERS, M.D.
Macon

There is no disease or condition in medicine that calls for more urgent treatment than does diabetic coma. There is no disease or condition in medicine in which your patient's life may so nearly ebb away, and yet be so quickly restored to normal health, active and useful life, with the modern means of treatment at our command.

There are very few diseases or conditions in medicine in which we have so nearly a specific as we have for diabetic coma, when administered early. Yet diabetic coma is still responsible for from 50 to 75 per cent. of the deaths of diabetics. Why? Probably not always from ignorance or carelessness on the part of the patient or physician, but in the majority of cases it is one of these two, and it is for these two reasons that I am presenting this paper today. Not only that you may be better equipped to treat it, from having heard this paper and the discussion which I hope will follow, but to stress the importance

of teaching and impressing your patients of the dangers of coma and how to prevent it.

The treatment of diabetic coma is not confined to the men who somewhat specialize on the treatment of diabetes, and obviously enough it can never be. Any man who practices medicine may have to treat diabetic coma at any time. For this reason he should always have the remedy at his finger tips.

In order that we may more clearly understand the principles of the treatment of diabetic coma, let us for a few minutes deal with the condition that causes it. The human system in normal health, in the process of metabolism, is constantly burning carbohydrates, proteids and fats. To burn fats it is essential that the organism burn carbohydrate. As someone has expressed it, "Fats burn in a carbohydrate flame," and when for any reason, as in the disease diabetes, the organism loses this power of burning carbohydrate to a sufficient extent, it then in turn fails to completely combust its fats, and as a result, we have an accumulation in the system of this incompletely combusted fat in the form of acid bodies as B. oxybutyric, diacetic acid, acetone and others. These cause the condition of acidosis and when it progresses to a degree sufficient, the patient becomes comatose.

The degree of acidosis may to a certain extent be measured in several ways, and if these tests are used we may anticipate coma for hours or days before our patient reaches this stage. The tests most commonly used are the CO₂ combining power of the blood plasma, the estimation of the alveolar air tension, estimating the quantity of acid bodies in the blood, and estimating the quantity of these acid bodies in the urine. The first three mentioned are rather technical and may be used only by those who have access to a laboratory, but the examination of the urine for these acid bodies is simple and may be done by either doctor or patient any time, anywhere. While their estimation may not be altogether as accurate as some of the other tests, they are accurate enough for practical purposes. All you need is a test tube and some Ferric chloride solution. Drop the Ferric chloride in the tube with the urine until the precipitate has dissolved and if diacetic acid is present,

*Read before the Medical Association of Georgia, Albany, Ga., May 14, 1926.

you have a dark burgundy color. If your patient has been taking coal tar products, you may get a similar reaction, but by boiling if the reaction is from diacetic acid it will clear up, while if from drugs it will not. This test should be taught every patient while he is being taught diabetes in general.

While, as above stated, we have a remedy that will save most of the patients in diabetic coma, the old axiom still holds good, "An ounce of prevention is worth a pound of cure." We want to stay away from coma if possible.

The average diabetic diet is high in fat and low in carbohydrates. The reason for this is obvious, but there is a limit to which we may carry it. Most of all diabetics will stand an antiketogenic-ketogenic ratio of 1 to 1.65 so long as they have no infection and are burning all the carbohydrate. Of course we figure in this diet that 58 per cent of the proteid and 10 per cent of the fat are utilized as carbohydrate, and that 42 per cent of the proteid and 90 per cent of the fat are utilized as fat and may be transformed to fatty acids. Some will stand a ratio considerably higher, but I do not consider it safe to send them out on a higher ratio unless they are closely watched. It has been my experience that once they have acidosis and coma, they don't seem to tolerate the higher ratios as well as before. The ratio must be kept within safe bounds. They must be taught the danger of food debauches, if infections of any kind, and should some acute disease, a coryza, influenza or a carbuncle develop, the importance of being under close supervision of the physician. If the supply of insulin fails, they must cut the diet one-third; if for any reason they cannot eat or, they vomit all they eat, they must cut the insulin one-third, and if they have insulin reactions cut each dose in half or take small doses oftener (Joslin); instead of taking it three times a day, may divide it into six doses, taking one every four hours.

If a diabetic becomes pregnant, her tolerance may pick up during pregnancy, and when she reaches full term, may think herself practically well of diabetes, but when the baby is born her tolerance may drop and she may develop coma rather acutely. This point should

be stressed to all who might possibly become pregnant and the importance of being under close and competent supervision at delivery. Every possible precaution to prevent coma should be taught the diabetic and even then they will occasionally develop it. You will see an attack of coma occasionally in a patient that did not even know he had diabetes.

When a case of coma of any kind is encountered, the first thing to do is to determine the cause of the coma; because he is not a known diabetic does not mean that he may not have diabetic coma, and on the other hand because he is a known diabetic does not mean that he may not have some other kind of coma. Diabetics are rather prone to arteriosclerosis, apoplexy and uremia and are as liable to drug comas and practically as liable to alcoholic comas as other people. A person may have an injury to the brain and not only be in coma, but have sugar in his urine when he is not a diabetic at all, and, of course, don't forget the possibility of an overdose of insulin producing coma.

Unfortunately our laboratory tests for acidosis and the degree of acidosis do not always prove or disprove diabetic coma. Neither do they prove the depth or the degree of coma. All diabetic comas have a low CO_2 combining power of the blood plasma and a low carbon-dioxide alveolar air tension, but not all low CO_2 combining powers and low carbon-dioxide alveolar air tensions have coma. All diabetic comas have diacetic acid in the urine, but we see diacetic acid in the urine many, many times without coma. These tests are only aids in our diagnosis but should be used when possible. Most all patients with a CO_2 combining power of the blood plasma of twenty volumes per cent or lower are in coma, and a great many of them before it gets that low, and at fourteen volumes per cent they are usually in constant absolute coma (Joslin). However, there have been cases reported as low as five volumes per cent without constant absolute coma. These are the cases that Joslin speaks of as being dead in the laboratory while they are still much alive.

In addition to sugar and diacetic acid in the urine and a high blood sugar, the clinical

findings are the most simple and are our best guide, both as to diagnosis and treatment and they include the following: The mental condition of your patient, acetone odor to the breath, Kussmaul respiration, subnormal temperature, low blood pressure, rapid pulse rate, dry skin, softening of the eyeballs, and frequently a history of pains in the abdomen or elsewhere and vomiting for a day or two previous and, of course, a history of diabetes where it is known your patient has it.

As soon as the diagnosis is established the treatment must begin and the first thing to do is to give a dose of insulin either subcutaneously, intravenously or both. The size of the first dose and where it is to be given will depend on the age, size of the patient, depth of the coma, and the condition of the circulation. If an adult in mild coma and still responsive to questions, with good circulation, give 40 to 50 units subcutaneously and repeat with 20 to 25 units every one or two hours, depending on the clinical improvement. Continue to repeat until out of coma. If more severe, it may be repeated every 30 minutes. If the circulation is poor, it should be given intravenously. If the coma is deep and the estimation of life without insulin is only two or three hours, then the original dose of 40 to 50 units should be repeated every fifteen to twenty minutes until improvement is noted. You are dealing with a grave condition and you must use heroic measures.

The only danger from large doses of insulin, of course, is hypoglycemia. To prevent this, do blood sugar estimations, if possible, before each dose of insulin, or have a retention catheter in your patient and get a few drops of urine and test for sugar before each dose of insulin. If the percentage of sugar in the urine becomes very small, or extinct, give enough glucose for the insulin to work on, either intravenously or by stomach tube, if the patient is unable to drink it. It is not a bad plan to give them all glucose proctoclysis continuously, as they need lots of fluid anyway, and when I use heroic doses of insulin I always feel safer to give them glucose intravenously or orange juice by mouth.

However, hypoglycemia is harder to produce and insulin apparently burns less car-

bohydrate per unit in the presence of acidosis and coma than it does under ordinary conditions in the same individual. For instance a patient who burns two grams per unit ordinarily, in the presence of acidosis may burn only about one and one-fourth or even less.

Giving insulin isn't all you must do. After the first dose of insulin, wash the stomach out, and give a cleansing enema. The pulse will frequently drop considerably from washing the stomach. Apply heat externally and in addition to proctoclysis if your patient is much dehydrated give saline solution by hypodermoclysis or into the peritoneum, or if the circulation is poor it may be given very slowly intravenously. This method, however, is dangerous unless given very slowly. As soon as the patient can drink he may take sufficient fluid by mouth, taking small amounts often, and part of it in the form of hot coffee. If stimulation is needed, give caffeine-sodio-benzoate, four to six grains per hypo every one or two hours.

No diet is given during the coma, except glucose or orange juice. As he comes out of the coma he is given a high carbohydrate diet and enough insulin with which to burn it, until his acidosis clears up, after which he is established on a routine diabetic diet.

I would like briefly to report one case in which I feel like I partially made a failure, the only one of the sixty odd diabetics I have treated in the past three days that is not still alive.

Mrs. H., age 24 years, weight 135 lbs., 5 ft. 3 in. high, was referred to me in coma by Dr. O. S. Spivey, of Macon, March, 1925, with the following history: Two years previous, she was operated on for goiter and said: "The doctor had to get the sugar out of my urine before he could operate." She made an uneventful recovery from the operation, was told no more about diabetes or sugar in the urine, had felt perfectly well since, lost very little weight and had noticed nothing abnormal except polyuria for past few days.

She was married in Columbus, Ohio, one week before I saw her, and was on her way to Florida in an automobile. The day she reached Macon, her husband had noticed that

she was drowsy all day, had no appetite and was slightly nauseated. She retired early, slept soundly all night with a peculiar type of breathing. The following morning she could not be aroused, a physician was summoned. He made a diagnosis of diabetic coma, and moved her from the hotel to the hospital. I saw her first about 10 a.m. She was still partially responsive, but could not be aroused. Contrary to most diabetic coma patients she was still so fat that a vein could not be found from which to obtain blood for any blood chemistry.

Her urine contained 4 per cent sugar and 4 plus diacetic acid, and she had all the typical symptoms and signs of a diabetic coma. She was given 50 units of insulin subcutaneously, her stomach washed out and an S.S. enema given. Every two hours thereafter she was given 25 units, her urine being examined before each dose. By the time she had received 125 units she was coming out beautifully. During the day she received 50 grams of carbohydrate in form of orange juice. The following day she was perfectly clear, ate all she could get, and received during the day 75 units of insulin. In 10 days she was able to figure, weigh and measure her own diet, give herself the insulin, and left Macon taking 50 units per day on a maintenance diet and entirely sugar free. She went to a south Florida town, got along nicely and was able to gradually reduce her insulin. Three months after I saw her she became pregnant; had an uneventful course during her pregnancy and was able to leave her insulin off entirely after the 7th month and in March this year her baby was born, after which she rapidly went to the bad, developed coma, and in four days was dead. I knew nothing of her pregnancy until I received a letter from her husband giving an account of her death. I am afraid I did not stress to her sufficiently the dangers of pregnancy and impress on her strong enough the importance of being under competent supervision at delivery, should such happen.

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DISCUSSION ON PAPER OF DR. ROGERS

Dr. Guy J. Dillard, Columbus: Dr. Rogers has thoroughly covered the treatment of diabetic coma, for which he should be commended. His method of presentation has been simple and to the point. His remarks regarding the prevention of coma cannot be over emphasized. It is of the utmost importance to teach the patient diabetes from the start. I make it a routine to have every diabetic study his manual until the subject is familiar; and this is determined by repeated quizzing. Cards regarding pre-coma and hypoglycemia are given with the manual. The onset of coma is extremely insidious and protean in its manifestations. I recall two cases seen during the past year which began with convulsions. The first case was that of a school-teacher, aged thirty-three, who retired in perfect health. She was found at midnight in convulsions. The blood sugar was high. Under the usual treatment she recovered from her coma in twelve hours, after which she was placed on a basal metabolic diet with insulin for thirty days. The diet was increased to some 3,000 calories per day. Blood sugar remained normal. It occurred to me that she had regained her tolerance and was allowed to eat anything she desired. She reported monthly for several months for blood sugar and sugar tolerance tests, both were normal. Cases like this make us wonder what actually happened to her metabolism to throw it out of balance.

The second case was seen early this month and she appears to be regaining her tolerance.

In regard to coma little can be said other than what Dr. Rogers has pointed out. One point I would like to mention and that is the danger in intravenous medication. The danger being that of acute cardiac embarrassment, as the great majority of diabetics show myocardial changes.

Dr. J. A. Redfearn, Albany: I wish to congratulate Dr. Rogers on his splendid paper. He has covered the subject in a way that leaves nothing for discussion except emphasis on a few points, and possibly a little summary.

The question of hypo- and hyper-glycemia it seems to me is a little bit misleading, and I have tried to think of a term that would mean more. To my mind carbohydrate overflow really means more, for hyperglycemia means an abnormal amount of sugar in the blood, and we can give insulin without any overflow of sugar. We know that sugar is commonly found in various other parts of

the body, and I think to speak of carbohydrate overflow means more.

I wish to point out that we may give large doses of insulin in these cases, as the Doctor brought out, without being afraid, and without giving the glucose immediately. What do we do when diabetic patients come in? We invariably say that we will put them on a diet, find out the condition of the blood and urine sugar, give them rest, and so on, and that within a few days we will know whether they have to take insulin and if so how much. We have in mind that we are going beyond the blood with the sugar, and the hypoglycemia is brought about by too much insulin, but I have not seen where any serious thing that has come about in that way cannot be readily remedied with a little sugar. I had a patient recently, a young man weighing 115, who went home taking thirty-five units of insulin three times a day, the blood sugar only down to 160 or 170 after meals, but he went along and took care of himself for several days before he began to show any reaction. Then a mild reaction came on late in the afternoon, but it was only necessary to take a teaspoonful of sugar and then his supper. The insulin can be gradually cut down, which he has done himself. He now gets fifteen units three times a day and is doing satisfactorily. He has gained fifteen pounds in weight, normal weight 145.

Speaking of burning in the carbohydrate flame, that is true, but if the carbohydrate is not there it burns down to a smouldering flame, for fatty acids are there which produce coma, and often death. It is easier to prevent coma in ninety-nine cases than to cure it in one case. I agree with everything the Doctor has said regarding prevention and wish to emphasize it.

Dr. Thomas E. Rogers, Macon (closing): I believe every doctor should be thoroughly familiar with diabetic coma, and how to handle it. Diabetic coma is going to be more common, and we will see it more in the future than we have in the past. There are two reasons for this: first, the diabetics heretofore have died so much earlier than they are going to die now. With the modern methods of treatment of diabetes they can live as long as if they did not have diabetes if they know how to live. For that reason they will be with us right along. The other reason we are going to have more is because they will be walking on "insulin stilts," as Joslin says. Every doctor should have insulin on hand at all times. In the State of Massachusetts John D. Rockefeller, Jr., has donated a fund called the Rockefeller Insulin Fund, which provides

every doctor with insulin that he carries with him constantly. This is not a bad idea for quick treatment will often save these patients, whereas a short delay may let them get beyond redemption.

TYPES OF GASTRIC AND DUODENAL ULCER AND THEIR MANAGEMENT*

JOHN B. FITTS, M.D.

Atlanta

To accurately state the incidence of gastric and duodenal ulcer occurring in the general population would be difficult, as reliable statistics are not at the present time available. Postmortem figures show peptic ulcer present in five per cent of all adults dying of various causes.

A definite diagnosis is arrived at only by a careful analysis of clinical history, X-Ray and laboratory findings. In the past, prior to the beginning of the X-ray era in 1910, gastric ulcer was greatly over diagnosed. It is to the credit of the X-ray in the past fifteen years that accurate diagnosis have been made, and the greater frequency of duodenal ulcer established. Based on the clinical history alone, epigastric pain has been too often ascribed to ulcer when it was due to pathology in the right lower quadrant or to irritable colon. On the other hand some cases go undiagnosed because they are expected to conform to the classical syndrome. Eusterman has reported five cases of duodenal ulcer simulating the gastric crises of tabes dorsalis. Careful study differentiates.

There are many cases of peptic ulcer that have existed for years that have never sought medical advice, for the reason that these cases are essentially ambulatory, and are hospitalized only for special medical or surgical treatment or for the complications of hemorrhage or perforation.

This study is based on an analysis of seventy-five cases of which twenty-one were gastric and fifty-four duodenal ulcers. Of the seventy-five cases, fifteen were operated upon

*Read before the Medical Association of Georgia, Albany, Ga., May 14, 1926.

and fifty-eight treated medically. Two remained untreated.

Complications: Hemorrhage was present in a larger per cent of these cases than it usually occurs. Three cases were of the perforating type. Seven were associated with appendicitis. One case showed hemorrhagic erosions in the duodenum accompanying fatal burns. (Duodenal ulcer has long been known to occur with extensive burns in some cases.)

In the operated cases gastro-enterostomy was the operation of choice in the majority of cases.

An analysis of the symptomatology of these cases showed many to be of the classical type. One history showed evidence of ulcer since ten years of age. In the last two thousand cases of peptic ulcer at the Mayo Clinic forty-two cases were in children, some as young as four or five years of age.

The majority of the cases reviewed in the series of this paper showed a history of oral sepsis or tonsillar infection. The importance of this finding will be emphasized further.

End Results: Of the fifteen operated cases, on dismissal ten showed improvement, three died, two were unimproved. Of the fifty-eight medical cases, on discharge fifty-five were improved, one unimproved, two died.

Comment: As to the etiological factors in the production of peptic ulcer, Rosenow's work on the specificity of certain streptococcal infections is striking. Organisms have been isolated showing selective affinity for the stomach and duodenum, producing acute ulceration and hemorrhage. The experimental work of Mann has shown that streptococci from ulcers even of different species are closely related and are specific for the disease. However, it is not at all proven that infection is the only cause of the disease. Smithies calls attention to the fact "that in more than 95 per cent of instances peptic ulcer is a visceral lesion formed as a complication of a systemic, constitutional, toxic or environmental disturbance."

Certain nervous and endocrinal factors must also be considered in the etiology, and one must remember that these cases are often

complex and that up to the present time the exact cause has not been proven.

Colon stasis as emphasized by Lane and Jordan is striking and one is certainly influenced in the view that this is a most important contributing factor. In the average ulcer case, close study often reveals that both colon stasis and focal infection have long existed.

Other factors as faulty food habits, carbohydrate excess, and vitamin deficiency, as emphasized by Harris, are most important and far reaching.

As to other factors producing the chronicity phase in ulcer, this, of course, involves a consideration of high hydrochloric acid values, neuro-muscular states and nutritional needs.

Types: Types of gastric ulcer are most clearly set forth by Cole from the X-Ray standpoint. They are:

(1) The deeply penetrating type. This is the type most frequently seen in clinics and hospitals.

(2) The burrowing type.

(3) The large shallow or florid ulcer. This is often the malignant type.

(4) The small round ulcer—non-penetrating type.

(5) Mucosal type.

(6) Healed ulcers. Eusterman states that the necropsy findings in 2,000 consecutive cases in the Mayo Clinic, besides other recent pathologic investigations, gives positive proof of the capacity for chronic peptic ulcer to heal, it being found in 6 per cent of cases.

Ulcers are also divided into types which are based on progress, namely the acute ulcer and the chronic ulcer, the former progressing rapidly and the latter having acute exacerbations with periods of relief or apparent cure. The duodenal ulcer has no crater, but in the common form, results in some degree of induration, scarring, and deformity of the cap.

Management of the Ulcer Case: Internist and surgeon are closer together now in their ideas of the proper disposition of these cases than they were a few years ago. In a recent paper on "The Diagnosis and Treatment of Chronic Gastric Ulcer," Sir Berkeley Monyham states "that it is at least arguable that the necessity for surgical relief in many cases

is due to a too perfunctory trial of medical treatment." He advises that before surgical treatment is instituted a really serious attempt be made to treat all cases of chronic ulcer by medical treatment.

These cases must be most thoroughly and carefully studied for focal infection, especially in the teeth, tonsils, and sinuses. These points should be cleared up at the beginning whether the plan is for either medical or surgical treatment.

The frequency of associated pathology in the abdomen as appendiceal and gall-bladder disease should always be kept in mind. There may be a greater need for the eradication of these conditions than for the ulcer itself.

There are certain selected types of ulcer that should have certain selected treatment. In one group of cases one has frank surgical indications, and these types should be so handled. Thus in case of perforation, of recurring severe hemorrhage, of organic stenosis, of complicating perigastritis and periduodenitis with adhesions, and of the severer sequela generally, there can be no question of the necessity of prompt surgical intervention. In gastric ulcer particularly, due to malignant possibilities, and where a well conducted medical regimen fails to relieve symptoms surgery is indicated.

There are certain types that do well on medical regimens, and this does not mean that all cases should be blindly tacked on to this man's diet or that man's treatment, but that each case should be individualized according to the individual requirements of that particular case.

Alkalinization therapy is most effective in controlling symptoms. This in certain cases should be carried to the point of complete neutralization of acid secretion. Caution against the production of an alkalosis should be borne in mind.

Smithies series of 474 cases is worthy of study from the standpoint of therapy. He decries alkalinization methods in these cases and bases his treatment on "physiologic rest" methods, emphasizing control of abnormal gastric or duodenal motor activity, rather than on changes in gastric chemistry.

In my own experience management along the following lines has given the best results in those cases where a medical regimen was indicated:

(1) Prompt removal of sources of focal infection.

(2) The milk, cream, egg, cereal diet at two-hour intervals according to indications.

(3) Complete or partial neutralization of acid gastric secretion with the salts of calcium, magnesium, and bismuth.

(4) The use of atropin and belladonna to relieve muscle spasm and to check secretion.

(5) Complete colon studies to determine the extent and degree of colon stasis.

(6) Transformation of the intestinal flora if a putrefactive type of flora is present.

(7) Maintain a diet that meets proper nutritional requirements, especially that relating to the protein and vitamin needs. A protective diet regimen is applicable just as much to the post-operative cases as to the medical.

(8) A short bed rest is advantageous in the beginning of treatment, but ambulatory cases do well.

In general medical treatment should be prolonged for weeks after clinical symptoms have disappeared.

A consideration of peptic ulcer would not be complete without mention of its relationship to the cancer problem. There are many experienced surgeons who believe that cancer follows gastric ulcer frequently. On the other hand there are internists of equally as wide clinical experience who believe that cancer only develops in a comparatively small per cent of cases.

It is my own feeling that cancer of the stomach occurs predominantly in individuals who have been unusually free from a history of digestive diseases. It is interesting to note that the duodenum seems to be peculiarly immune to malignancy, it occurring in only about .3 of one per cent. On the other hand it is particularly susceptible to ulcer, the ratio of duodenal to gastric ulcer being about 5 to 1.

SUMMARY

From this study the author concludes that:

1. Peptic ulcer is too frequently diagnosed when the actual pathology is elsewhere.
 2. It is often overlooked in atypical cases.
 3. There is a necessity for the recognition of an associated appendiceal and gall-bladder disease.
 4. The importance of pre-existent focal infection and colon stasis, must be recognized.
 5. The best treatment is evolved by the identification of certain selected types with their individual requirements.
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Dr. George M. Niles, Atlanta: The treatment and management of ulcer is a broad subject, but one point I bear in mind and believe those who have had experience will bear in mind; that is, it depends largely upon the personal equation. If we have an intelligent patient, who will co-operate satisfactorily, we have a much better chance of getting results from the rest, diet and medicinal therapeutics. Some patients will be free from symptoms within a few weeks, and then will often think they are well and unfortunately let up on their treatment. What we need for success is to have patients who will co-operate, who will stay on the treatment for a long time, and who will realize that the ulcer is not absolutely well unless they have gone for several months without symptoms. When I find patients who will not co-operate, I am ready to tell them to see a surgeon, for those are the ones who have relapses or perforations.

Dr. Fitts gave us a well-considered and well thought out paper, and I appreciate it greatly.

STRICTURE OF THE URETHRA*

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Columbus

On the reading of this paper of Stricture of the Urethra, you will hear of no new treatment, nor will you consider any statement I make as dogmatic or final. My experience of seven years in treating a goodly number of men and women in clinic, hospital, and private practice, leads me to the conclusion that the average person goes to his family physi-

cian for treatment of this condition and does not get value for his money.

Physicians should not be classed with the druggist who treats genito-urinary conditions, but sometimes dispense strong astringent drugs for injection and treat neither the patient or the disease. Very few physicians make any attempt to discover when the patient is well. The general practitioner could not afford to equip himself completely for this class of work but he should equip his mind and instrument cabinet sufficiently to diagnose a stricture. Because I am a young man I cannot afford to criticize some of you who have years of experience and wisdom that is gained thereby, but, I must say that it is almost disgusting to think that the general practitioner will dabble with genito-urinary conditions, the fresh graduate will treat them because he thinks he can gain some cash easily, and the general surgeon believes that it is a part of his duty to operate on any case brought to his attention and that by some unknown means he is specially gifted in the art of treatment without further study and time and much thought having been given.

Any of and all of these types of doctors mentioned above have the right and privilege of doing any of these things that they desire, but they could at least remember that they are dealing with a human being and not a cadaver and there are ways of doing things right and those ways are the only ones. Why the male and female genital organs should be considered so free from possible trauma and subject to practice by the uninitiate is more than I can see. After a good many years of real hard study and much labor I feel that I am only beginning to see the light. Early diagnosis, proper care and a thorough understanding between you, the doctor, and the patient will go a long way towards amelioration of this condition which later becomes so disturbing and dangerous.

A stricture is any abnormal narrowing of the urethra from cicatrix or deposit of abnormal tissue. It may permit a French 26 or a filiform; it may allow stretching to French 35 or may be of such nature that nothing can be passed. To be an active pro-

*Read by title before the Medical Association of Georgia, Albany, Ga., May 14, 1926.

moter of trouble does not limit or define its size (stricture), but it does almost positively assure you that in the future you may expect a steady progression of symptoms.

The causes of stricture are few, gonorrhea being the chief offender by far. During the inflammatory stage a peri-urethral exudate is thrown out with subsequent cicatrization and formation of scar. Scar contracts and the lumen is narrowed. Neither drugs of too great strength or improper action nor mechanical trauma before or after inflammatory stage always cause scar. Rough usage of instruments is not an infrequent cause. I have four patients over 70 years of age who have been cystoscoped recently and have developed stricture afterwards. One was my own case and the other three were handled by men of more than ordinary ability, these strictures were sufficient to limit outflow of urine. These cases are mentioned that they may be kept in mind. This added to the natural infirmity of old age the existing condition that has called for the examination will make matters much worse. Passage of stone from the bladder or passage of some foreign body into bladder also cause a strictured urethra.

There are some impediments to passage of instruments worth while mentioning which might mislead you in thinking they were strictures, spasm is transitory but very frequent in a nervous and non-anaesthetized patient, stone or other foreign body in the urethra; hypertrophy of the prostate, paresis, congenital valve formation, false passage from a previous mutilation, tumor from within or without the passage.

It is not my purpose to present a complete resume of the subject but due to the fact that so many cases are overlooked until they are referred for a diagnosis you yourself could have made, a few of the more prominent symptoms are given. Morning drop would certainly cause you to look for a stricture, that typical ever present and persistent and most annoying itching sensation in the urethra; a recurrent epididymitis, failure of prostate and vesicles to clear up after sufficient treatment (very few physicians, however, attempt to give sufficient treatment), low grade cys-

titis, pus shreds and gonococci in the urine and urethra after a reasonable length of time will all cause a search for stricture.

It is a recognized fact that patients with stricture of the urethra are usually irregular attendants, but this is because of the pain caused at the time you give your treatments and after pain for days. The majority, not all, can be so treated that they will gladly return for more. At any rate they should have the advantage of your knowledge as to what may happen. Most cases are curable in that patients can live free and easy the rest of their lives but may have to have a sound occasionally. They should be told that they cannot obtain adequate emptying of their bladders while they have the strictures, and, further, their kidneys and health are endangered.

Examination and diagnosis of this condition are one. From time immemorial doctors have been rough with the urethra (patients often wonder if the doctor ever had gonorrhea). If ever there was a time when you should be gentle, patient, and kind, it is when you are making your initial examination. You should desire to gain the confidence of the patient, dispelling from his mind the horrors he has been rightfully told of. There are one or two points that may be minor but add to the ease of the examination. Rusty sounds are rough and not conducive to good work, silk finished instruments should be used when you are below French 18 if possible and a filiform and follow up sounds are excellent in beginning dilatations. Sterilization and lubrication are also very important. Metal instruments are best sterilized by boiling, and the others, after being cleansed, by immersion in 1:500 cyanid. The urethra should be cleansed after urination and the meatus should be sponged off. Not so long ago practically no one used an anaesthetic but it is not only permissible but very good practice, in my mind, to inject a couple of drams of 4 per cent procaine or equivalent (not cocaine) into the urethra to be held for five minutes. Time may be gained after you have decided to examine the urethra by sterilizing the instruments while the anaesthetic is taking effect. The procaine does not cause the concealment of anything that

you would be able to find without the use of the same, and you will be able to make a much more satisfactory exploration. You will be able to determine just as truly and surely the caliber of the lumen and the position of all constrictions passed.

It is most satisfactory to begin with French 26 bougie and try even numbers down the scale until you have found one that will pass the meatus, I find that most meati are French 22. Keep trying them until you have found a bougie that will pass without force throughout the length of the urethra. A decided feel is experienced when you pass a stricture and decided resistance is felt when you withdraw the instrument. (Indurations will cause a sensation that will have to be differentiated). Sounds may be used to calibrate the posterior urethra if you are using a metal bougie for the anterior. There is a gripping sensation felt on withdrawing a sound through a stricture. I find that a stricture will cause a distinct feel when a bougie smaller than the true caliber of the constriction is used because of the small meatus. Experience, history of patient, observation of urine, and urethroscopic view together with the condition at meatus and in urethra will tell you whether you ought to perform a meatotomy. This is painless and simple if done properly.

Attwater (Medical Practice, May, 1925), gives a very unique technic for diagnosis of stricture of large caliber. These are ones that are missed the most and, therefore, give continuous trouble over long periods of time. He uses a straight Kollman dilator for the anterior urethra and the curved for the posterior.

It is inserted as usual and passed until the handle is between the thighs, here he uses a burette stand and clamp to hold the instrument steady. The dial is turned with the tips of the fingers until a resistance is met with, pause for a moment and relaxation will take place, then proceed, each resistance will call for a pause until you have met with a definite resistance which shows that the limit has been reached. This is very satisfactory in a large percentage of cases but it will not always be possible to dilate to French 45 in those cases that have no stricture. It might be that all

of our cases had a constriction but that is hardly possible. About 35 to 40 is the limit. The dilator is fastened that there will be no cause for spasm on slight movement of the instrument and the finger tips are used to turn the dial in order that the resistance may be felt more quickly. The urethroscope is a very valuable instrument and should be a part of every physician's equipment, for conditions will be found that would be missed any other way, unless very expert and careful calibration is undertaken. Any text-book relating to the subject will explain how the urethra fails to fall together under your vision but it takes actual experience to realize this. Not to match my ability, but just the opposite, against Young's, I have never been able to pass a filiform with the use of a urethroscope that I could not pass otherwise.

Filiforms, both whale bone and silk finish, with screw tips that fit either the Phillips flexible bougies and Le Fort sounds are necessities. The LeFort is not the best but the most common. You will be told that whalebone can be broken off but they can also be recovered. The passing of a filiform is one of patience, care and tenderness. I have had patients return more than once before I could pass a filiform. This is no disgrace for you can quickly tire out and traumatize your patient and a rest may present a slight relaxation. Passage of filiforms is facilitated by the addition to routine measures of injection of some light oil. Grasp the meatus with the thumb and forefinger of the left hand and pass the whip with the right. At times it may be necessary to fill the dead space with filiforms before you can persuade one to enter a torturous canal. Being of an inquisitive nature and desiring to try anything that would give assistance in impassable cases I have fluoroscoped and X-Rayed some cases with use of sodium iodine. Something was learned in case these patients went to operation but no aid was gained in the passage of instruments.

Many of us fall down when the diagnosis is made and treatment is begun. Sounds used properly and not at too close intervals act by pressure. When patients ask, I like to tell

them that they act by increasing the blood supply and subsequent absorption of scar just as massage would. If you can get a bougie by, begin with that number. If below 18 use filiforms and follow sounds up or dilating bougie, letting any of them ride gently by the area. On the first passage if there is no evidence of pain, either by voice or facial expression, use the next largest even number; otherwise wait until 3-7 days have passed before repeating. To be of the greatest value allow the instrument to remain in place for not less than 10 minutes by the clock, and preferably 30 minutes. On each return of the patient use the last size of previous sitting and if possible the next two larger. If dilatation progresses easily, you will have used 3 sounds. There will be many times when you may have to drop back for several sizes. Do not get discouraged, just begin here as if you had just reached this point and proceed as usual. It is wise to go through the same procedure of anaesthesia, asepsis, etc., each time until the inflammatory stage has passed, then the anaesthesia may be discontinued provided the patient does not suffer. The sounds should be passed at as close intervals as the patient will tolerate until you have reached the limit of the meatus. If this is not at least 24 to 28 French, do a meatotomy to the latter size, and after reaching this use the Kollman dilator, using one or two numbers until you have reached 32 to 36 French, depending on the size of the penis. There are cases when a much larger number should be reached. Freedom of dilatation will indicate this fact. When you have reached the limit, a large size should be passed at increasing intervals, then monthly, then every six months, for a while. If you have dealt with a massive scar formation the patient should be warned to report twice a year thereafter.

The modern Kollman dilator is a very nice but powerful instrument, be very careful of its power or you will tear the scar and the urethra causing a very distressing new scar. On these cases that have to be operated upon, opinion is divided as to internal or external urethrotomy. If the stricture is at, or very close to the meatus, cut and cut now with meatotome or urethrotome. You will never

dilate dense scar located there. For an operable stricture of the pendulous urethra, use internal urethrotomy. Personally I know the Maisonneuve. Make your own choice, but learn the instrument.

Operations should be resorted to when instruments can be passed only where there is excessive bleeding, septic chills and fever, repeated difficulties offered to passage as a treacherous false passage, fistula, uncontrollable extreme fear of pain, dense scar as might be caused by syphilis. My choice is always internal unless there is a fistula or the condition is in the prostatic urethra and is massive. Operations cause more scar tissue but if after treatment is thorough, and prompt relief obtained, the resulting effect on the general system justifies it. Common sense should be used in all filiform strictures and not the most rapid method of relief. Think several times before operating.

The operation is just as drastic frequently as a prostatectomy. The same fore and after care should be used as in the latter. It is not just a matter of a few minutes on the office table and the command, "return in a few days." I had a perfectly good patient to pass out in a well regulated hospital where he received every possible after care but not enough fore care. Every possible angle should be considered and every attempt made to dilate and obtain bladder drainage before operation is advised. Impassable stricture calls for surgical intervention. Description and technique would require too much space here, but, suffice it to say, that it should be undertaken on the same scale as a major operation.

Stricture of the female is not uncommon by any means but relief is more rapid. Diagnosis and treatment are the same. More examinations will discover more cases. Under French 22 is supposed by some to denote stricture in the female but you will find that in some cases French 24 or 26 will pass where there is a definite constriction. Very little is written on this subject, but it has been my experience that considerable relief can be obtained by proper treatment.

The percentage of patients, both male and female, who have had chronic gonorrhea and

have stricture of the urethra is very high. In the male it is almost 100 per cent. Stricture is not a hobby of mine but it is a routine part of care. By being very patient, at times several minutes have been required to insert one sound. By paying particular attention to the results of the last treatment and governing the approaching one accordingly, I find that it is not necessary to insist on future treatment but that it is freely accepted, and in practically every instance a pleased patient is the result. Under no circumstances will I treat in any way a patient who refuses to allow me to make any examinations I feel called for. They are always the ones who need the very thing they wish omitted. The luetic question should be gone into thoroughly as lues prevents prompt healing. Anemia is present in a large number of cases and should be combatted with diet, etc. I have used diathermy but cannot say that the end result was more satisfactory with use. There were cases where some greater comfort was afforded but that is the extent of my observation. Stricture of the urethra is an important cog in a vicious circle and must be gotten rid of, but, indiscreet treatment may prove a boomerang, causing the circle to expand into an ellipse.

Since writing this paper I have read an article by Clark in April 17, issue of the A. M. A. Journal on "Gentleness in Genito-Urinary Surgery". If you have not already read the article you would do well to read it.
300 Doctors Bldg.

THE MIDWIFE PROBLEM*

O. R. THOMPSON, M.D.

Macon

The great advances in surgery and medicine have come as the result of concentrated effort extending over hundreds of years. The advances in both of these, as to the results obtained, surpass the results in midwifery, which antedates any record we have of medicine as an applied science. To the average physician, surgery and medicine have been more fascinating and, as the result of his

lack of interest, social customs and prejudices, the midwife is today attending too great a percentage of the mothers during delivery.

In the European countries, where the midwife has been a fixed institution for hundreds of years, adequate training is required under Government supervision. The ignorance and customs of the people forced the Government to train and raise the standards of those practicing midwifery, and no doubt this training is in part responsible for the low maternal and infant mortality found in some of the European countries.

As long as a great percentage of our population is foreign or of foreign parentage with the old customs and prejudices predominating, the midwife will be a menace to our maternal and infant welfare. Supplying maternity hospitals for the care of all cases is not only impossible but impractical. Educating the people to a thorough appreciation of the best maternity care, causing them to forget their old customs and superstitions is a slow process. Ignorance, economic conditions, and the scarcity of physicians, especially in the rural districts at the present time, renders the midwife a necessity. We can only follow the example of the European countries. Train her as best we can and place her under rigid supervision.

It is the popular opinion that the midwife is answerable for the large percentage of maternal deaths. In a review of the literature we find this to be true only in the centers where the midwives are not trained and held under supervision. According to the detailed study of the midwife problem by Dr. Julius Levy in the February, 1923, issue of the American Journal of Health, there is a gradual decrease in the number of midwives in the larger cities, and those centers having the largest percentage of midwives have the smallest percentage of maternal deaths. Mosher, in discussing the midwife problem in his paper on Maternal Morbidity and Mortality (American Journal of Obstetrics and Gynecology, March, 1924), concludes, "that the rapid decrease in the number of midwives in practice; the more drastic supervision by the department of health over them in the regions where they are still popular and in-

*Read before the Sixth District Medical Society, Indian Springs, Ga., June 24, 1925.

dispensable, because of the lack of physicians; the realization that their work, among the part of the population whom they serve, shows no higher percentage of bad results than the general average of the community; these considerations eliminate the midwife as a factor to be reckoned with in the solution of the question of the continued high rate of maternal mortality."

The general attitude throughout the country toward the midwife problem is clearly brought out by Harbin (*Sou. Med. Journal*, May, 1925.) "First, the midwife should be abolished; second, the midwife had best be ignored and left to her own devices; third, the midwife should be raised to a higher plane by proper state control and education. The first proposition is impossible, until some better substitute for the midwife is provided to care for the large number of women she attends in child birth, and until the people are sufficiently educated to demand better service. The second proposal is unworthy of serious consideration. The third proposition is at present the only practical way of dealing with the midwife problem, whether it has for its object the temporary safeguarding of the helpless women and children, or finally the elimination of all but the educated midwives. Since the evil cannot be eradicated, the danger to the public can be minimized by some provision for the proper regulation, supervision and control of the midwife by the state. The methods of regulating midwifery may be divided into three classes: restrictive measures carried to absolute abolition, educational restriction, and, finally registration and supervision. The purpose of regulation by educational restriction, generally speaking, is not to disturb the existing body of midwives, but to gradually replace them by means of progressively elevated requirements and standards, by a smaller body of well-trained women. This method may be carried in the course of years to the point of practical abolition. The primary object of registration is to bring the midwives under the supervision of competent officials, so that their work may be subjected to some measure of supervision."

In the north and east the midwife prob-

lem is quite different from that in the south. There they are either foreign or of foreign parentage and a fair percentage of them have been trained in Europe or at the school in New York. In the South we have to deal with the ignorant and superstitious negro. The grave menace that constantly threatens our maternal and infant welfare here is clearly shown by the following figures upon the proportion of births attended by midwives and the estimated number of women practicing:

In Mississippi 4,000 midwives attend 48 per cent of all births.

In Alabama 1,500 midwives attend 60 per cent of all births.

In Virginia 6,000 midwives attend 40 per cent of all births.

In Georgia 5,000 midwives attend 20 per cent of all births.

In Kentucky 2,500 midwives attend 20 per cent of all births.

In Maryland 2,000 midwives attend 66 per cent of all births.

In N. Carolina 6,500 midwives attend 73 per cent of all negro births.

In S. Carolina 5,000 midwives attend 80 per cent of negro and 20 per cent of white births.

Throughout the entire country there is but one recognized training school for midwives. This is the Bellevue School for Midwives connected with Bellevue Hospital, New York. The school requires eight months intensive training and after graduating they are able to handle a normal case very creditably. They are taught to handle only normal cases and to call a physician should any complication develop. The midwives throughout the south have not the educational qualifications or the finances to enable them to take their training at this school, and consequently if they are to have any training, which indeed they must, the task falls on the State Board of Health and the physicians in the localities where they practice.

The Medical Association of Georgia, realizing the seriousness of the midwife problem, passed a resolution in 1924 governing the practice of midwifery and submitted it to the State Board of Health for adoption. The State Board adopted the resolution, and during the

(Continued on page 139)

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Profession of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

APRIL, 1927

ALLEN H. BUNCE, M.D., Editor
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M. M. HEAD, M.D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

THE PATHOLOGY OF RHEUMATIC FEVER

A critical review of the pathology of rheumatic fever by Benjamin Sachs, M. D., of New York, appearing in the American Heart Journal of August, 1926, affords a very comprehensive and concise summary of the histological changes occurring in the heart, aorta, joints, lungs, kidneys, skin, and other organs of the body.

The contention that a streptococcus is the cause of the disease has been supported by positive blood cultures in varying numbers of cases, but the question is raised again as to whether or not the lesions in the myocardium of laboratory animals inoculated with these organisms are identical with the Aschoff bodies. These bodies whenever present are recognized as the specific lesions of rheumatic fever. They form periarterial collections of mononuclear and multinucleated cells of the histiocyte series not only in the myocardium, but also in the valves, pericard-

ium, and wall of the aorta where their presence is "probably due to the fact that their blood supply, like that of the myocardium is derived from the coronary arteries". Although the proliferative lesions in other parts of the body differ superficially from these nodules, it is suggested that this may be due to histological differences of the affected tissues.

It is significant that antirheumatic drugs have apparently no effect on the Aschoff bodies; but, as they grow older, proliferating fibroblasts replace the large characteristic cells and form periarterial scars in which may be left only a few lymphocytes. The writer suggests that like the granuloma of tuberculosis, they may contain the "unknown virus of the disease that is capable of producing fresh lesions from time to time and helping to perpetuate the infection in the body."

PROGRESS OF THE WOMAN'S AUXILIARY

That the Woman's Auxiliary to the various Medical Societies in the State and of the American Medical Association has come to stay and to be a distinct force is evidenced by the growth of the movement. This is further stressed by the publication of the Bulletin of the Woman's Auxiliary of the American Medical Association, the first number of which has reached our desk. It is to be issued quarterly. It is published under the direction of the executive board and is edited by Mrs. Allen H. Bunce of Atlanta.

A definite plan of financing the publication will be adopted at the next annual session to be held in Washington, D. C., next May. Arkansas is given mention in the publication of the names of standing committees in the various States, Mrs. Homer Scott of Little Rock being named as of the finance committee, and Mrs. C. W. Garrison of Little Rock, director.

Comparative statistics are given of the auxiliaries now organized and being organized.

The first number contains a report of the proceedings of the Southern Medical Association held in Atlanta; a greeting from Mrs. Seale Harris of Birmingham; a report of the chairman of HYGEIA, the health publica-

tion sponsored by the American Medical Association; an editorial department with comments on the meeting of the Executive Board of the Woman's Auxiliary of the American Medical Association, written by Mrs. F. P. Gengenbach of Denver; a directory of component auxiliaries with the names of the presidents, which includes Mrs. Dewell Gann, Sr., of Benton as president of the Arkansas Auxiliary; an appeal for support of the movement and the importance of paying dues by Mrs. Irvin Abel of Louisville, Ky., and other matters of interest to members.

Mention must be made also of an article by Dr. Olin West, Secretary of the American Medical Association, Chicago, in which he gallantly and truthfully remarks that "The greatest and best auxiliary of the doctor is the doctor's wife" and he proceeds to tell of how in a hundred ways she is a daily help and inspiration. Also there is a beautiful article by Mrs. S. C. Red of Houston, Texas, one of the founders of the auxiliaries, which tells of the charm of love, which has led so many thousands of women to share the lives of medical men of the country. The auxiliary itself is an expression of love, she holds. Women belong to it because they love their husbands and their profession. She closes by sending a message of love to all, even including "the dear grouchy old fellows, who do not approve of the auxiliary, because they just have not stopped to realize what the auxiliary means. It just means love—that is all."

With the high standard set in the first number of the Bulletin the editor predicts that soon it will be appearing as a monthly instead of a quarterly.

—The Journal of Arkansas Medical Society.

William R. Bathurst, M.D., Editor.

STATE BOARD OF HEALTH NEWS

The State Board of Health announces that there were 2,265 deaths reported for February of this year, which is 955 or 29.7 per cent less than were reported for the corresponding month in 1924, the last year in which Georgia was included in the Federal Registration Area.

The death rate per 1,000 population in February, 1927, is 9.2 against a rate of 13.4 in February, 1924. This low rate is due in

large measure to fewer deaths being reported for Automobile Accidents, Cancer, Diphtheria, Heart Disease, Influenza, Measles, Nephritis, Pneumonia, and Tuberculosis.

There are only four causes (Cerebrospinal Meningitis, Pellagra, Smallpox, and Syphilis) that show higher rates in 1927 than those in 1924.

Since the figures for 1927 are provisional and will very likely be increased by the receipt of delayed certificates no accurate deductions can be made. The State Board of Health presents them that they may show at least the trend.

BUREAU OF VITAL STATISTICS FEBRUARY, 1927

Reported for the month of February

CAUSE	Number		Annual Rate per 100,000 Population		
			1927		1924
	Cases	Deaths	Cases	Deaths	Deaths
All Causes	3335	2265	1348.0	915.5	1339.6
Acute Inf. Con- junctivitis	7		2.8	...	...
Anchylostomiasis	8		3.2	...	...
Anthrax	1		0.4	...	...
Automobile Accidents	*	21	...	8.5	12.9
Cancer (All Forms)	*	115	...	46.5	51.6
Cerebrospinal Meningitis	3	5	1.2	2.0	0.4
Chicken Pox	272	1	109.9	0.4	...
Diphtheria	87	12	35.2	4.9	7.5
Dysentery	4	9	1.6	3.6	...
Gonorrhea	218		88.1	...	1.0
Heart Disease	*	181	...	73.2	125.2
Homicides	*	33	...	13.3	13.7
Influenza	742	98	299.9	39.6	58.2
Malaria	73	10	29.5	4.0	7.5
Measles	568	10	229.6	4.0	63.2
Mumps	105		42.4	...	0.4
Nephritis	*	246	...	99.4	110.2
Pellagra	5	33	2.0	13.3	9.6
Pneumonia	174	192	70.3	77.6	181.0
Poliomyelitis	2	1	0.8	0.4	1.7
Rabies (in man)	1		0.4	...	0.4
Scarlet Fever	86	1	34.8	0.4	1.2
Septic Sore Throat	47	1	19.0	0.4	2.7
Smallpox	503	4	203.3	1.6	0.8
Suicides	*	14	...	5.7	7.9
Syphilis	162	37	65.5	15.0	14.2
Tetanus	0	1	...	0.4	2.1
Trachoma	1		0.4	...	...
Tuberculosis (Pulmonary)	87	178	35.2	71.9	90.7
Tuberculosis (Other Forms)	4	14	1.6	5.7	5.8
Typhoid and Para- typhoid Fever	28	14	11.7	5.7	8.3
Typhus Fever	6		2.4	...	...
Whooping Cough	141	9	57.0	3.6	10.8

*Cases not required to be reported.

THE MID-WIFE PROBLEM

(Continued from page 135)

fall of 1924 and spring of 1925 more than 1,000 midwives received instructions in about one-third of the counties throughout the state. Trained workers in maternal and infant welfare have been sent out from the State Board of Health to organize classes for instruction. In a great many counties the physicians have volunteered and lectured to the classes.

The work has not been going on long enough throughout the state to make an appreciable showing in the vital statistics of the state; however, the results obtained in Bibb County adequately show what can be accomplished by the training and supervision of the midwives. Through the efforts of Dr. C. L. Ridley, health officer at Macon, the city council in 1921 passed an ordinance forcing all the midwives to register at the health office and also to take a course of lectures in midwifery. Since that time fully ninety per cent of the midwives in Macon and Bibb County have received instructions, and those working in the city have been under the supervision of a trained nurse working with the health department. The midwives have been taught to recognize complications, and when they develop immediately turn the patient over to a physician or send her to the hospital. More cases of pre-eclampsic toxemia are being sent to the pre-natal clinic, and rarely is there a case of eclampsia admitted to the wards that was previously under the care of a midwife. The most interesting showing in Macon's vital statistics during the last two years is the reduction of 48 per cent in the colored infant mortality. There is no doubt that the training and supervision of the midwives plays a part in this marked reduction.

A midwife is not capable of assimilating enough obstetrics to make her a competent obstetrician; but my four years' experience in instructing them has proven to me that she is capable of learning some of the essentials. One course of ten lectures is not sufficient to drive home the things she must learn to do and not to do. The average midwife should be required to take at least three courses of lectures, and then be held under supervision

by a trained worker. Her old customs and superstitions will cause her to forget the new ideas taught her by the physician or nurse unless ground in and made to stick by fear of the law.

The instructions to the midwives should be simple, and include the necessary information for the taking care of the normal case. She should be made to understand the complications of both pregnancy and labor, and should be taught how to care for her patients during the pre-natal period and to recognize the complications common to that period. The following essential facts should be thoroughly understood by her, and those in charge of her supervision should see that every detail is carried out: (1) value of the midwife's personal cleanliness at the time of delivery; (2) careful preparation of the patient and the use of lysol solution; (3) sterilization, by boiling, of the instruments used; (4) danger of a douche before, during, and after the delivery; (5) danger of a vaginal examination and the giving of drugs to hasten labor; (6) use of sterile cord tape and dressing the cord with sterile gauze; (7) instillation of one per cent silver nitrate in the baby's eyes; (8) use of boric acid solution in washing the baby's eyes, mouth, and the mother's nipples; (9) last, and probably the most important, the immediate calling of a physician should any condition occur that varies from the normal.

CONCLUSION

In the South and especially in the rural districts, the midwife is a necessity. Since she has to share the responsibility of our maternal and infant welfare, it is our duty to make her more efficient.

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Harbin, E. R.: The Midwife Problem. *Southern Medical Journal*, May, 1925.

Mosher: Maternal Morbidity and Mortality. *American Journal of Obstetrics and Gynecology*, March, 1924.

**Next Annual Session Athens,
May 11-12-13. Come!**

District and County Societies

District Editors

- | | |
|---------------------------------|-------------------------------|
| 1. Long, W. V., Savannah. | 7. McCord, M. M., Rome. |
| 2. Watt, C. H., Thomasville. | 8. Carter, D. M., Madison. |
| 3. Greer, Chas. A., Oglethorpe. | 9. Bennett, J. C., Jefferson. |
| 4. Peniston, Joe B., Newnan. | 10. Lee, F. Lansing, Augusta. |
| 5. Fitts, Jno. B., Atlanta. | 11. Mixson, W. D., Waycross. |
| 6. Thompson, O. R., Macon. | 12. Cheek, O. H., Dublin. |

1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.
2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926.
3. Dougherty County, Dr. I. M. Lucas, Albany, Dec. 15, 1926.
4. Chattooga County, Dr. W. B. Hair, Summerville, Dec. 16, 1926.
5. Macon County, Dr. F. M. Mullino, Montezuma, Dec. 30, 1926.
6. Lamar County, Dr. Jno. M. Anderson, Barnesville, January 6, 1927.
7. Pike County, Dr. M. M. Head, Zebulon, January 25, 1927.
8. Rabun County, Dr. J. A. Green, Clayton, January 27, 1927.
9. Murray County, Dr. E. H. Dickie, Chatsworth, January 27, 1927.
10. Taylor County, Dr. J. C. Hind, Reynolds, January 29, 1927.
11. Jasper County, Dr. E. M. Lancaster, Shady Dale, February 9, 1927.
12. Terrell County, Dr. Logan Thomas, Dawson, February 24, 1927.
13. Butts County, Dr. J. Lee Byron, Jackson, March 30, 1927.

NINTH DISTRICT MEDICAL NEWS

The two last district meetings were held at Hoschton and Sanatorium, near Alto, respectively, Sept. 15, 1926, and March 16, 1927. Dr. Edson W. Glidden, the affable and efficient Superintendent of our State Tuberculosis Sanatorium, presided over both.

At Hoschton. Invocation by Rev. Odum Clark, pastor of the Methodist church. Words of welcome by Dr. S. T. Ross, of Winder, and response by Dr. C. L. Ayers, District Councillor.

The scientific program. Blepharitis Marginalis, Dr. L. W. Hodges; Magnesium Sulphate—Its History and Newer uses, Prof. R. C. Wilson. In Memoriam, Dr. L. J. Sharp, deceased, by Dr. F. M. Hubbard. Some Newer Methods of Diagnostic Technique, Dr. E. C. Thrash, assisted by Dr. Leon Brawner. Address by Dr. V. O. Harvard, president of Medical Association of Georgia. Recess

for dinner. At the afternoon session we were entertained by splendid addresses by Dr. Allen H. Bunce, Sec. Medical Association of Georgia, Dr. J. L. Campbell and Dr. Joe P. Bowdoin, of the State Board of Health. The papers on the Scientific program were well prepared, and altogether a splendid and profitable day was spent. The noon hour refreshments were delicious. At night a public health meeting was held with splendid results.

At Sanatorium. Invocation by Rev. A. T. Cline, of Toccoa, and a prayer was offered by Rev. W. H. Wrighton, of Commerce. Dr. Glidden, president, gave us a most hearty welcome, and made us feel at home. Dr. J. H. Downey, our dean, responded. Dr. L. G. Hardman, Governor-Elect, was present by special request, and spoke to us for twenty minutes. His address was well received. Following his speech we were shown thru the new building and it is a thing of beauty. It is four stories high, well ventilated and magnificent in all its appointments. The patients were removed from the old plant just a few days ago. There are some one hundred and sixty, with nearly that number on the waiting list. At one o'clock we repaired to the spacious dining hall where the inner man (and woman) was fully satisfied.

Following luncheon; Dr. B. B. Davis, Gainesville, was elected president, Dr. L. G. Neal, of Cleve, land, vice-president, and this scribe re-elected secretary-treasurer. Gainesville selected as place of next meeting. The afternoon program as follows: Report of a case of Chronic Lymphatic Leukemia, Dr. L. G. Neal. Tubercular Joints by Dr. Theodore Toepel. Georgia's Health Needs by Dr. T. F. Abererombie, Secretary, State Board of Health. A Medical Emergency-Diabetic Coma by Dr. Allen H. Bunce, Secretary Medical Association of Georgia. The County, District and Medical Association of Georgia by Dr. C. L. Ayers. On motion this paper to be printed in our Journal. All papers and discussions were excellent.

This was one of the best meetings ever held. At Hoschton and at Sanatorium, many of the Woman's Auxiliary members were present, and held meetings of their own. Dr. Hardman, and Mrs. C. W. Roberts, state president, were called to the rostrum at Sanatorium.

Many of our counties have not reported to the State Secretary for 1927. Let us get busy, and have a creditable standing when the Association meets at Athens in May.

J. C. BENNETT, M. D.
Sec. 9th Dist. Medical Society.

COUNTIES REPORTING FOR 1927

GWINNETT COUNTY MEDICAL SOCIETY

Gwinnett County Medical Society announces the following officers for 1927:

President—N. H. Pierce, Suwanee.

Vice-President—Chalmers Hinton, Lawrenceville.

Secretary-Treasurer—D. C. Kelley, Lawrenceville.

Delegate—A. D. Williams, Lawrenceville.

Alternate—G. S. Kelley, Lawrenceville.

Board of Censors—W. P. Ezzard, N. J. Guthrie and J. C. Orr.

GREENE COUNTY MEDICAL SOCIETY

Greene County Medical Society announces the following officers for 1927:

Secretary-Treasurer—Goodwin Gheesling, Greensboro.

Delegate—Goodwin Gheesling, Greensboro.

Alternate—T. L. Holcombe, Union Point.

UPSON COUNTY MEDICAL SOCIETY

Upson County Medical Society announces the following officers for 1927:

President—B. C. Adams, Thomaston.

Vice-President—C. A. Harris, The Rock.

Secretary-Treasurer—R. L. Carter, Thomaston.

Delegate—K. S. Williams, Thomaston.

Alternate—E. W. Carter, Thomaston.

Board of Censors—K. S. Williams, C. A. Harris and J. M. McKenzie.

MITCHELL COUNTY MEDICAL SOCIETY

Mitchell County Medical Society announces the following officers for 1927:

President—J. L. Brown, Camilla.

Vice-President—J. A. Summerlin, Pelham.

Secretary-Treasurer—C. A. Stevenson, Camilla.

Board of Censors—J. R. Clements, J. H. Riley and A. T. Stevens.

COFFEE COUNTY MEDICAL SOCIETY

Coffee County Medical Society announces the following officers for 1927:

President—Geo. M. Ricketson, Brixton.

Vice-President—D. H. Meeks, Nichols.

Secretary-Treasurer—T. H. Clark, Douglas.

Delegate—John R. Smith, Douglas.

Board of Censors—A. S. M. Coleman, H. C. Wheelchel and W. L. Hall.

DEKALB COUNTY MEDICAL SOCIETY

DeKalb County Medical Society announces the following officers for 1927:

President—J. F. Schneider, East Lake, Decatur.

Vice-President—J. R. Evans, Decatur.

Secretary-Treasurer—G. A. Duncan, Decatur.

Delegate—B. V. Wilson, Decatur.

Alternate—W. W. Andrews, Tucker.

Board of Censors—C. L. Allgood and C. E. Pattillo.

COBB COUNTY MEDICAL SOCIETY

Cobb County Medical Society announces the fol-

lowing officers for 1927:

President—J. E. Lester, Marietta.

Vice-President—L. G. Garrett, Austell.

Secretary-Treasurer—R. W. Fowler, Marietta.

Delegate—W. H. Perkinson, Marietta.

Alternate—W. E. Benson, Marietta.

JENKINS COUNTY MEDICAL SOCIETY

Jenkins County Medical Society announces the following officers for 1927:

President—M. E. Perkins, Millen.

Vice-President—Q. A. Mulkey, Millen.

Secretary-Treasurer—C. Thompson, Millen.

Delegate—M. E. Perkins, Millen.

Alternate—Q. A. Mulkey, Millen.

JOHNSON COUNTY MEDICAL SOCIETY

Johnson County Medical Society announces the following officers for 1927:

President—T. L. Harris, Wrightsville.

Secretary-Treasurer—J. C. Brantley, Wrightsville.

Delegate—H. B. Bray, Wrightsville.

Alternate—R. E. Brinson, Wrightsville.

FLOYD COUNTY MEDICAL SOCIETY

Floyd County Medical Society announces the following officers for 1927:

President—J. L. Chandler, Rome.

Vice-President—Cliff Moore, Lindale.

Secretary-Treasurer—J. H. Mull, Rome.

Delegate—W. J. Shaw, Rome.

Alternate—W. P. Harbin, Rome.

Censor—A. H. Dellinger, Rome.

BUTTS COUNTY MEDICAL SOCIETY

Butts County Medical Society announces the following officers for 1927:

President—A. F. White, Flovilla.

Vice-President—B. F. Akin, Jenkinsburg.

Secretary-Treasurer—J. Lee Byron, Jackson.

Delegate—A. F. White, Flovilla.

Alternate—O. B. Howell, Jackson.

Board of Censors—B. F. Akin, A. F. White and J. Lee Byron.

OCMULGEE MEDICAL SOCIETY

Ocmulgee Medical Society announces the following officers for 1927:

President—A. L. Smith, Cochran.

Vice-President—E. C. Brown, Hawkinsville.

Secretary-Treasurer—Albert R. Bush, Hawkinsville.

Delegate—A. R. Bush, Hawkinsville.

Alternate—A. L. Smith, Cochran.

Board of Censors—W. H. Pirkle, I. J. Parkerson and E. C. Brown.

BROOKS COUNTY MEDICAL SOCIETY

Brooks County Medical Society announces the following officers for 1927:

President—T. R. Moye, Quitman.

Secretary-Treasurer—R. E. McClure, Quitman.

Delegate—J. R. McMichael, Quitman.

Georgia State Association of Graduate Nurses

OFFICERS

President.....Miss Lucy M. Hall, R.N. 522 East 40th St., Savannah, Ga.	2nd Vice-President.....Miss Mae E. Burges, R.N. 1108 East Henry St., Savannah, Ga.
1st Vice-President.....Miss Margaret E. Dorn, R.N. 1117 Telfair St., Augusta, Ga.	Secretary.....Mrs. Alma E. Albrecht, R.N. Georgia Infirmary, Savannah, Ga.
Treasurer.....Miss Jane VanDeVrede, R.N. 105 Forrest Ave., N.E., Atlanta, Ga.	

"Nursing is carrying the responsibility for adapting and co-ordinating the conditions immediately surrounding a patient so as to re-establish and protect his health." Martha Russell, R.N.

REGISTRATION AND STATISTICS

The American Medical Association has rendered nursing education a real service by the inclusion of statistics of Schools of Nursing in its Hospital Number.

While there are many tragic truths revealed in the reports of Georgia schools let us trust that by their being called to the attention of all the thinking Doctors and Nurses of the State they may in cooperation find the ways in which to improve their mutual service to the sick. The Journal's cryptic statement, "The care rendered to hospital patients depends largely on the extent to which the educational function (of the hospital) is developed" should challenge our efforts. Indeed, we may safely go a step further and say the care of the sick in homes to a very great extent does also, since ninety per cent of our sick are still cared for in their homes, and nurses attending them reflect the standards of scholarship and training received in the Schools of Nursing connected with these hospitals and are then not under nursing supervision at all. Georgia provides 10,340 beds for its sick or one for every 303.6 of our people. The statistics are far less favorable when it comes to the supply of nursing service, according to its tables there are 1189 student nurses and 2226 registered nurses but the latter figure is totally hypothetical. While it is true that 2226 nurses have been registered in Georgia, this includes all who have died, removed from the state, married and given up active nursing, or who for any reason are not now practicing in Georgia. Perhaps the most reliable roster of nurses registered in the state and

actively in the profession is represented in the State Nurses' Association which numbers about 675 but we realize that this is not a fair estimate and until we can secure compulsory registration and an annual re-registration of nurses we cannot hope to secure a fair estimate. The tables show that in Florida with a population of less than one-half of that of our Empire State there are more registered nurses than in Georgia. In Wisconsin and Virginia with populations slightly less than that of Georgia both states have twice as many nurses qualified by their states while in Pennsylvania with three times our population they have ten times as many nurses registered by that state.

The picture is not as dark as appears on the surface, for in a recent endeavor to reach all nurses in Georgia, through the cooperation and with the assistance of the doctors of the state we secured the names of eleven hundred nurses not in our registered nurse files. We have no way of knowing at present how many of these nurses are registered or how many are graduate nurses, nor of judging of their qualifications for caring for the sick other than the general assumption of their efficiency because they are recommended by physicians and employed by the people of Georgia. The general statistics of the country are given for 327,045 registered nurses, or about 28 for every 10,000 of the country's population, as against this the figure for Georgia is 7.1 for every 10,000 of Georgia's population.

And then comes one of the tragic sentences of the whole report, "The total number unregistered nurses has not been ascertained.

Before my eyes in panorama pass the eleven hundred nurses of Georgia whose faithful and for the most part efficient service cannot be included because they have failed to secure registration in the State in which they serve the sick or help to safeguard the health of our people.

Those who are nursing without a complete course of training should have the protection of a legal status also. There are many cases that do not require the skill of the fully trained nurse but intelligence cannot be applied by doctors nor the public in choosing the type of nursing service most suited to the case until such service is classified and regulated in some way.

The whole economic side of service to the sick would be rapidly revolutionized and come within the reach of a much greater percentage of our population if the doctors, the nurses and the public representing the patient were equally informed on the whole question of the nurse's status and qualifications and only the personal equation remained to be considered. The proposed amendments being sought to deal with the situation include:

(A) A waiver of six months so that no handicap will result to the graduate nurse now in the field who may not have been able to register heretofore.

(B) Authority to the Board to grant credit for academic and special courses.

(C) Re-registration annually.

(D) Compulsory registration for all graduate nurses.

A section could be provided to permit others nursing the sick as a calling or business to be licensed if it were desired by them, the doctors and the public.

NATIONAL LEAGUE OF NURSING EDUCATION

The National League of Nursing Education holds its annual meeting in San Francisco, Cal., June 6-10. Headquarters will be established at the Cliff Hotel where all of the meetings except the open sessions will be held. Summer rates on all railroads and a special route by water through the Panama Canal make it possible to include an attractive vacation and a great instructional meeting in one trip. The conference on Public

Health arranged at the offices of the American Medical Association and called by its Board of Trustees to discuss subjects of interest to physicians and Public Health workers was attended by Miss Evelyn Wood and Miss Ada B. McCleary representing the American Nurses' Association. Over thirty organizations sent delegates. An exhibit of publications issued by the American Nurses Association was on display.

NEWS AND NOTES

The Guild of St. Barnabas for Nurses, through the generosity of its Secretary General, Mrs. Jas. D. Ireland of Cleveland, Ohio, favored two of the districts of the Georgia State Association of Graduate Nurses, in Atlanta and Savannah, March 23, and 24th. Miss Gladys Stephenson an English Nurse missionary who had been on furlough from China and had been studying at the Western Reserve University held her audiences thrilled with the enthusiasm, pathos and humor of her addresses. In Savannah and in Atlanta student nurses from all the schools of nursing as well as graduates gathered to hear her.

She told much of the lure of pioneer nursing conditions, of the growth of the Chinese Nurses Association which has grown in from 1912-1927 to over 2000 members. This Association supervises registration of nurses in China. There are more male nurses than female nurses in China. When missionary nurses went to that country there was no word in the language to express their services nor status. A new word was coined from two others, scholar and nurture, hence, the nurse is the scholar who cares for the sick, a status not always deserved in this country.

Miss Stephenson was interrupted in her country wide initiary by a cable calling her back to China to hospital work at once. She felt it an honor when so many foreigners are being driven out of the country to be requested to return. She had been there eleven years and is greatly beloved by Chinese nurses. She recently retired as the President of the Chinese Nurses Association. She tells us not to halt in our plans to go to China for the Congress of the International Council for Nurses. They will be waiting for us and it

will do much to hearten the war weary nurses of that great empire of over 400,000,000 people. To Pekin in 1929!

March 12th was the birthday anniversary of Jane Archer Delano that great American Nurse whose genius organized and directed the Nursing Service of the American Red Cross. To honor her memory the Red Cross nurses, whose records are kept under the jurisdiction of the Local Committee in Atlanta, came at some time during the day to the State Headquarters to sign their annual questionnaires renewing their allegiance in the Red Cross Nursing Service and declaring how they can serve the organization during the current year. The nurses from Ft. Benning, Ft. McPherson, U. S. V. B. Hospital No. 48 were especially invited. It is suggested that this plan be extended to other local committees in the state. Reunions were much enjoyed. The Nurses Flag of the Emory Unit was on display and stirring days were recalled by many.

DID YOU KNOW THAT:

Eighteen nurses under the supervision of the Health Department with Miss Lillian Alexander, R. N. supervisor, a graduate of St. Joseph's Hospital, Atlanta, Ga. with special training in Public Health Nursing at Teachers College, Columbia University, made 25418 visits during 1926?

These nurses have given instruction to 2122 women in prenatal care?

A large percentage of women in Atlanta go to the hospital for maternity care than in most cities?

In 126 Hospitals in Pennsylvania only 7.34% of the total expenses of the institutions was for nursing education. For 3184 nurses in training the cost per nurse was \$273.68. Who knows how these figures compare with what Georgia student nurses cost our institutions?

The American Nurses Association Relief Fund has reached \$132,000 and that in 1926 about \$17,000 was awarded to sick nurses in benefits, and up to January 1927 about \$60,000 had been so awarded?

This Fund is available to any member of the State Nurses Association. The Ga.

State Nurses' Association subscribes \$50.00 per year and thus far in 1927 about \$175.00 had been subscribed by districts and individual nurses?

Of some one hundred and fifty beneficiaries nearly one half are suffering from tuberculosis. Read the Article in the American Journal of Nursing "One Hundred Thousand and Up".

BOOKS RECEIVED

The Modern Practice of Pediatrics by William Palmer Lucas, M. D., Professor of Pediatrics, University of California Medical School; Physician in Chief, Children's Department, University of California Hospital; Consulting Physician, Baby Hospital, Oakland, California; Author of the "Health of the Runabout Child" and "Children's Diseases for Nurses". Contains 962 pages. Publishers: The Macmillan Company, 60 Fifth Avenue, New York City.

Mineral Waters of The United States and American Spas by William Edward Fitch, M. D., Member of the International Society of Medical Hydrology; formerly lecturer on Surgery, Fordham University School of Medicine; Assistant Gynecologist O. P. D., Presbyterian Hospital. Contains 799 pages. Publishers: Lea & Febiger, 600 S. Washington Square, Philadelphia.

Health Supervision and Medical Inspection of Schools by Thomas D. Wood, M. D., College Physician, Adviser in Health Education, and Professor of Physical Education, Teachers College, Columbia University, and Hugh G. Rowell, M. D., Physician to the Horace Mann Schools, Lecturer and Assistant Physician, Teachers College, Columbia University. Octavo of 637 pages, with 243 illustrations. Cloth, \$7.50 net. W. B. Saunders Co., West Washington Square, Philadelphia.

BOOK REVIEW

ELECTROTHERMIC METHODS IN NEOPLASTIC DISEASES. By J. Douglas Morgan, B. A. M. D.—F. A. Davis & Company, Philadelphia, Pa.—This book consists of 172 pages divided into 9 chapters and illustrated with 36 line and half tone engravings. All of the chapters are well written and the illustrations are exceedingly good. The chapters on electrodesiccation and electrocoagulation are very good and well illustrated. Chapters 7 and 8 which consist of a general summary and tissue cutting by means of the high frequency current are well worth the price of the book.

JACKSON W. LANDHAM, M. D.

Woman's Auxiliary Medical Association of Georgia

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Dear Friends Over Our State—

The Woman's Auxiliary of Clarke County Medical Society cordially invites the wives of all doctors and their widows to attend the third annual meeting of the Woman's Auxiliary to the Medical Association of Georgia.

We are looking forward to seeing you personally and want this to be the largest and most successful meeting in our history. We will do all in our power to make it an occasion to be remembered.

A series of entertainments have been planned to keep you busy most of the time, leaving your husband free to attend the scientific sessions of the Association. Hoping to have you with us May 10, 11, 12, 13.

Very sincerely yours,

MRS. PAUL HOLLIDAY, President,

Woman's Auxiliary, Clarke County.

March 4, 1927.

Athens, Georgia.

PROGRAM

Third annual Meeting of Woman's Auxiliary to the Medical Association of Georgia.

TUESDAY-REGISTRATION

Georgian Hotel Headquarters—May 10-13th inclusive.

Wednesday May 11, 1927—Mell Auditorium.

11:00 A. M.

Meeting of Executive Board with Delegates.

1:00 P. M.

Luncheon—Woman's Club. Mrs. S. V. Sanford and Committee on Arrangements in charge.

Special Guests Mrs. Fannie Long Taylor and Miss. Emma Long, daughters of Dr. Crawford Long.

5:00 P. M.

Open Air Health Festival. Given by Child Health Demonstration. Agricultural College.

8:00 P. M.

Normal School Play.

PROGRAM—GENERAL MEETING

THURSDAY

10:30 A. M.

Mell Auditorium

Invocation by Dr. W. P. King.

Roll Call of Officers. Introduction of Honor Guests.

Address of Welcome by Mr. L. G. Dudley, Mayor, City of Athens.

Address of Welcome by Chancellor Snelling, University of Georgia.

Address of Welcome by Mr. M. G. Michael, from the City at large.

Address of Welcome by Mrs. Paul Holliday, President Clarke County Woman's Auxiliary.

Response to Addresses of Welcome—Mrs. Chas. C. Hinton, President Woman's Auxiliary, Bibb Co. Medical Society.

Minutes of last annual meeting.

Address, Gov.-Elect Dr. L. G. Hardman.

Report of Officers.

Report of Committees.

Election of Officers.

Unfinished Business.
New Business.
Adjournment.

THURSDAY
5:00 P. M.

Tea. Soule Hall, Agricultural School Campus.
7:30 P. M.

Banquet and Dance—Country Club.

FRIDAY
11:00 A. M.
Georgian Hotel

Executive Board Meeting of new Officers.
Committee on Arrangements:
Mrs. H. M. Fullilove.
Mrs. R. M. Goss.
Mrs. Paul Holliday.
Mrs. W. H. Cabaniss.

MEETING OF NINTH DISTRICT WOMAN'S AUXILIARY

The Woman's Auxiliary of the Ninth District met with Dr. Edson W. Glidden at the new sanatorium at Alto.

Minutes of previous meeting read and adopted.

Mrs. J. H. Downey, President, Gainesville, reported the last meeting of the Auxiliary held at Hoschton.

Resolutions Committee submitted resolutions on the death of Mrs. W. T. Randolph, Winder.

Mrs. C. W. Roberts, Atlanta, President of the Woman's Auxiliary of the state, gave an interesting talk on the work to be done, particularly urging the carrying out of the Ellis Health Law and requesting all members to subscribe for HYGIEA.

Ladies appointed to secure and direct the work to procure subscriptions for HYGIEA were as follows: Mrs. M. B. Allen, Hoschton, District Chairman; Mrs. F. W. Hubbard, Commerce, Chairman, Jackson County; Mrs. Harris, Chairman, Barrow County; Mrs. O. N. Hardin, Cornelia, Chairman, Habersham County; Mrs. John Rudolph, Gainesville, Chairman, Hall County.

Many talks and discussions were made giving plans for more work for better health in the state.
Adjourned.

(MRS.) ANNIE LOU RUDOLPH, Secretary,
Gainesville.

COMMUNICATIONS

To the Editor:

Enclosed is a copy of a decision in the Supreme Court of Georgia in the case of Dr. Mizell involving the requirements as to licensing physicians. The Supreme Court, as you will see, sustained the contentions of Dr. Mizell and makes it unnecessary to try to amend the law concerning registration, etc.

March 18, 1927 Sincerely yours,
Atlanta. BRYAN & MIDDLEBROOKS, Attys.

SUPREME COURT OF GEORGIA

5534. Friedman vs Mizell. Question certified by Court of Appeals, in case from Fulton.

Hines, J. 1. Section 3 of the act of 1881, now embodied in section 1684 of the Civil Code of 1910, was repealed by implication by the act of December 2, 1894, (Acts 1894, p. 85); and from January 1, 1895, to December 16, 1895, a physician was not required to register by said section of the act of 1881.

2. The provisions of said section of the act of 1881 were put in the Code of 1895, section 1479, and that of 1910, section 1684, by the codifiers, and said Codes were adopted by the legislature, the former by the act of December 16, 1895 (Acts 1895, P. 98), and the latter by the act of August 15, 1910 (Acts 1910, p. 48); and from December 16, 1895, to August 18, 1913, physicians licensed under said act of 1894 were required by such provisions to register.

3. By the act of August 18, 1913 (Acts 1913, p. 101), the legislature sought to repeal expressly the act of 1894. If for constitutional reasons this attempted express repeal was abortive, then the act of 1894 was repealed by implication by the act of 1913, and after August 18, 1913, physicians licensed under the acts of 1894 and 1913 were not required to register in accordance with such provisions of the act of 1881; and a physician licensed under the act of 1894, who had caused his certificate to be recorded as required by that act, could recover for services rendered after August 18, 1913, although the record of his certificate had been made prior to the date last named.

Answer in affirmative. March 17, 1927.

Noah J. Stone, for plaintiff in error.

Kobak & Levy, Fuller & Bell, contra.

To the Editor:

I have just read the article in the February issue of the Journal of the Medical Association of Georgia, by Dr. Louis Holtz. I enjoyed this article very much, as it is interesting and instructive.

There is one statement however, in the article that I would like to call special attention to, and that is in paragraph 2 page 63. In it the Doctor states. "Many American physicians who go abroad to study without this knowledge practically waste their time and money." He is referring here to the fact that it is imperative that you know the native language in order to be able to get the best courses. I do not doubt but this is true in many of the foreign clinics outside of Vienna and may be true to a certain extent even in Vienna Clinics if you are following any line other than the eye, ear, nose and throat. Altho, I talked with a number of men following other lines that were pleased with what they were getting even though they could not speak anything but English.

I spent six months in Vienna in 1907, and during that time only took one course under a German speaking instructor. I have just recently returned from Vienna and had no trouble in getting

work in English under the very best instructors in the City.

I simply wish to present these facts as the Doctor's article may probably fall in the hands of someone who is figuring on going to Vienna and cause him to miss what I consider one of the greatest places in the country to work provided he wishes to follow eye, ear, nose and throat. What I have to say applies to Vienna only as I have not worked in any other Cities he mentioned.

Yours very truly,

ALBERT S. BACON, M. D.

March 5, 1927.
Albany.

To the Editor:

You and the citizens of Georgia are to be congratulated on once more having an adequate Vital Statistics Law and I trust that registration of both births and deaths will soon reach the completeness necessary to include your state in the Federal Registration Area.

The Bureau of the Census, as you probably know, is authorized by Congress to collect statistics of births and deaths in all States where these records are accurately kept and in which registration is at least 90 per cent complete; consequently this Bureau is interested in every State having complete registration that these valuable statistics may be compiled for the entire United States.

Inclosed you will find a booklet "The Physicians' Pocket Reference to the International List of Causes of Deaths" which I trust will be of some service to you in filling out death certificates.

Very truly yours,

W. M. STEUART, Director,

Washington

Bureau Of The Census,
Department Of Commerce.

Dear Co-Workers:

Now is the time to begin our Summer Round Up of the Children of Georgia. Our goal is to have every child who enters school next September 100 per cent free from remediable defects. No tooth-aches, no sore throats, no pale cheeks, no strained eyes, no weak hearts. Oh, what a glorious example of Thrift: The saving and proper spending of the strength and energy of our precious little children.

This little suggestion comes to me: Let the children of the first grade invite the children who are to be in the first grade next year and their mothers to a school party. In this way the pre-school child becomes acquainted with the teacher, the school and the older children. The mother becomes interested and is willing and anxious to respond to the Summer Round Up. You could have the party in the form of a picnic or the First Grade children could give a play. The weighing, measuring and examining of each child could be a part of the program or that could be done later.

From time to time in the summer this same group could picnic together and by September they would all be ready to begin the school well, happy and on friendly terms.

No prizes are offered this year. We are stressing the educational value of the work, for this is what is making it such a success. Parents are grateful for this awakening of their duty to the children of their community. Do not let your P. T. A. be the only one in Georgia that does not respond. Return your signed registration blank to-day.

Yours for greater service,

FLOYD OLIVER JETER

Decatur, Ga.

President, Ga. P. T. A.

P. S. READ THIS LETTER OVER WITH YOUR PRINCIPAL, AND FIRST GRADE TEACHER.

To the Editor:

We are returning the corrected proof as requested.

Just a word about the mortality and morbidity report. I hope you will call attention of the medical profession to the great disproportion in the number of deaths and the number of cases reported. We hope by this comparison from month to month to stimulate a desire on the part of the physicians to have this morbidity column more accurate. The two items of tuberculosis and pneumonia give a striking illustration of the laxity in reporting these diseases.

Sincerely yours,

T. F. ABERCROMBIE, M. D.,

March 11, 1927.

Commissioner of Health.

To the Editor:

In the little village of Waynesville, Brantley, formerly Wayne County, Georgia, 23 miles from Brunswick, the city by the Sea, 35 miles from Waycross on the Atlantic Coast Line Railroad and Dixie Highway is situated what is believed to be the "Fabled Fountain of Youth" for which the famous Spanish Explorer, Ponce De Leon, sought in vain. Without doubt the Red Men before signing the treaty with the Palefaces in the Spring of 1804 and leaving forever their hunting and fishing grounds going to Indian Territory and Florida well knew the unusual medicinal value of this remarkable water (in color greenish blue) for annually each spring time they were wont to gather 'neath the boughs of their magnificent Council Oak and listen to their Chief's wise council, then journey to where their Pow-Wow was held, returning and spending weeks bathing and drinking this health giving water. After their departure from Georgia the Spring became as time passed, overgrown with trees and grass, and covered with washing of sand until only a mere damp place could be discerned; in the year of 1834, just 30 years after the Indians had moved, Rev. Jas. Highsmith bought the property on which this

Spring is located—the son-in-law of Mr. Highsmith being in extreme bad health began drinking the water, very soon he began to improve and ere long he was in perfect health, the news traveled fast, and soon the ailing humanity from all the surrounding country were making footsteps for the Highsmith Spring, as it was then called, many sufferers from rheumatism, bladder and kidney disorders were cured; after Mr. Highsmith's death the place was purchased by L. D. Oldham who never lived there and the place soon became dilapidated and the Spring which bubbled from an uncurbed sand pit ceased to be the Mecca for sufferers. In November 1905, Mrs. McElderry, the present owner bought the place and after many fruitless efforts to discover the Spring, her diligence was at last rewarded, the Spring found, opened and re-christened "Pocahontas", in honor of her father who was a lineral descendant of the Indian Princess and the Randolphs of Virginia. She built a house over the Spring, concreted it, making a basin of over one thousand gallon capacity, also had the water analyzed by the State Chemist which proved it to have mineral value of such a nature as to cure the summer complaint, the dreadful enemy of babyhood, also by the continual drinking proved helpful to the suffering accompanying pre-natal motherhood. The water has been endorsed and recommended by the best and leading physicians of Brunswick, Georgia and Brantley County, especially should we be proud of the marvelous Spring within her boundaries, a Spring which no doubt in time will be as famous as the French Lick from whence comes the famous "Pluto Water". While up to now it has only been advertised locally, its virtues are fast compelling the users to make its virtues known, and it is yet destined to again become a Mecca for all lovers of health and happiness.

Waynesville, Ga.

MRS. IRONA RUSH.

Miss Jane Van deVrede

Atlanta, Georgia.

My dear Miss Van de Vrede:

I hasten to congratulate you and the nurses of Georgia on your debut in the Journal of the Medical Association of Georgia. This is fine team work which should result in even better care of patients than in the past.

More power to you! May you attain all of the worthy objectives so clearly stated and press on to ever greater programs for the welfare of your great state.

Sincerely yours,

THE AMERICAN JOURNAL OF NURSING.

March 29, 1927,
New York.

NEWS ITEMS

The Ware County Medical Society held its regular monthly meeting Wednesday night, March 2, at the Phoenix Hotel in Waycross. The members were entertained at a banquet and Dr. J. W. Simmons, Brunswick, was the speaker of the evening. He addressed the society on "Serums and Serum Reactions." His paper was of much scientific interest in that it presented the results of tests with scarlet fever antitoxin in connection with the recent epidemic in Brunswick.

The National Tuberculosis Association will hold its next annual meeting in Indianapolis, May 23 to 26 inclusive. Clinical sessions will be held daily in general subjects, the teaching of tuberculosis in medical schools and latent tuberculosis in children.

The new state sanatorium at Alto was opened March 1 and ninety patients were removed from the old building to the \$500,000.00 structure just completed. The old and new buildings have a total capacity of about three hundred beds while the funds available are only sufficient to care for about one hundred. They have now on the waiting list one hundred and thirty two patients. Dr. T. F. Abercrombie, Commissioner of Health, will ask the legislature this summer for an appropriation of \$250,000.00, sufficient amount to care for all the patients who may be treated in the institution.

Drs. J. T. McCall and W. P. Harbin, Rome, were the principal speakers at the re-opening of the Samaritan Hospital for colored people, located at the corner of Ross and Broad Streets, Rome, on March 1. The institution had been closed for several months on account of the inability of the colored people to raise sufficient funds to maintain it.

At the annual meeting of the Tuberculosis Association held February 18, the following physicians were elected to the medical staff: E. A. Allen, C. C. Aven, M. M. Burns, J. H. Byram, Allen H. Bunce, M. L. B. Clarke, M. B. Copeloff, Grady Clay, A. M. Dimmock, T. F. Guffin, C. H. Holmes, Z. W. Jackson, Trimble Johnson, C. G. Kemper, J. W. Landham, F. C. Nesbit, Marion C. Pruitt, Willis Ragan, S. C. Redd, H. W. Ridley, Dan Y. Sage, Cosby Swanson, Herbert L. Treusch, C. L. Wall and J. G. Wood. Dr. Z. S. Cowan was reappointed to the chairmanship. Some of these physicians hold regular weekly clinics at the Association headquarters, 33 Cain Street, N. E., while others render special services at their offices.

Dr. William Shearouse, Savannah, read a paper on "Stricture of the Ureter" before the regular monthly meeting of the Chatham County Medical Society held February 22. It was discussed by Drs. H. Y. Righton and L. W. Shaw.

Miss Olive Whitfield, State Board of Health field nurse, has spent several weeks in McIntosh county in an effort to improve health conditions as outlined in the Sheppard-Towner health law. She had spent about two months working in Long county before going to McIntosh.

Dr. H. A. Moore has opened offices in Reidsville for the practice of his profession. He formerly resided in Oklahoma for twenty-five years.

Dr. Everard Wilcox, Augusta, read a paper on "Post Operative Pulmonary Embolism", and Dr. Dewey Gray, Augusta, read a paper on "Surgical Treatment of Pulmonary Tuberculosis" before the monthly meeting of the Richmond County Medical Society held February 17.

Hall-Chaudron Hospital, Cedartown, shows in its second annual report that there were three hundred and sixty surgical cases, four hundred and ten surgical and medical cases, treated in the institution last year; and there were two thousand and seventy three laboratory examinations.

Dr. R. E. McClure, county physician for Brooks County, examined six hundred and five school children in January and found four hundred and fourteen to have physical defects.

Dr. W. D. Travis, Covington, has returned to his home after being confined in the Piedmont Sanatorium for about ten days suffering from an attack of hiccups. He is a widely known and prominent physician of middle Georgia and has been the untiring secretary of the Newton County Medical Society for a number of years.

Dr. H. G. Hollinsworth, formerly of Meigs, has accepted a position with the Atlantic Coast Line Railroad and removed to Waycross.

The American Chemical Society will meet in Richmond, Virginia, April 11-16. The Virginia section of the society will be host.

Dr. R. E. McClure, Quitman, Brooks County Health Officer, announces a schedule of visits to the public schools of Brooks county to give typhoid vaccine.

Dr. C. W. Hilliard, formerly of Winter Haven, Florida, has removed to Bainbridge and opened offices for the treatment of diseases of the ear, eye, nose and throat.

Drs. H. J. Carswell, D. M. Bradley, C. M. Stephens, W. F. Reavis and G. E. Atwood, Waycross, members of the Ware County Medical Society, were appointed as a committee to investigate the most satisfactory method for raising \$75,000 for hospital purposes and report to the city commission. They have two plans under consid-

eration, one by an increase in taxes and the other by bonds.

Dr. T. B. Harper has been employed as Health Officer for Colquitt County.

Dr. Charles D. Ward, Lamar Building, Augusta, and Dr. C. W. Churchill, Augusta, have been appointed physical medical examiners for the United States Marine Corps.

The Walton County Hospital, Monroe, observed its second anniversary on March 12 with a "Tag Day" to raise additional funds for the institution. The second annual report of the hospital shows one hundred and fifty-six surgical cases, twelve accident, and typhoid vaccine administered free to three hundred forty-three people, two hundred and ninety-two school children examined.

Drs. J. F. Mixson and Frank Bird, Valdosta, awarded the contract for the construction of their new hospital at Central Avenue and Briggs Street, Valdosta, to R. M. McEachren, who began work on March 7. The building will be fire proof of brick and concrete and fully equipped with every convenience for the treatment and comfort of patients.

Emory Clinic Week is announced for June 6-10, inclusive.

REMOVAL NOTICES

Dr. Newdgate M. Owenby announces the removal of his offices to suite 1210 Medical Arts Building, Atlanta. Practice limited to Neurology-Psychiatry.

Dr. Eustace A. Allen announces the removal of his offices to suite 1120-21 Candler Building, Atlanta.

Dr. Edward Y. Walker, Jr. announces the opening of his office at suite 16 Doctors Building, Atlanta.

Dr. Witherspoon Wallace announces the removal of his offices to suite 904 Medical Arts Building, Atlanta.

Dr. Ben F. Jones announces the removal of his offices to suite 904 Medical Arts Building, Atlanta.

Dr. B. McH. Cline announces the removal of his offices to suite 1007 Medical Arts Building, Atlanta.

Dr. Taylor S. Burgess announces the opening of his offices, suite 1111 Medical Arts Building, Atlanta.

Dr. Charles Wesley Daniel announces the opening of his offices at 26 Linden Avenue, N. E., Atlanta. Practice limited to Obstetrics and Gynecology.

OBITUARY

Dr. Lucien O. McBride, Oconee, died at his home February 24, 1927. He was born in 1848 and graduated in medicine in 1873, an alumnus of Emory University School of Medicine. He had practiced medicine at Oconee for more than forty years. Dr. McBride was a member of the Masonic lodge, Washington County Medical Society, Medical Association of Georgia and Antioch Christian church, which he helped to establish nearly fifty years ago. He is survived by his widow, two daughters, Mrs. W. R. Hodges, Dublin, and Mrs. H. O. Hodges, Oconee; one son, T. Y. McBride. Funeral services were conducted from Antioch Christian Church.

Dr. John McGregor Spence, Camilla, died January 25, 1927. He was born August 17, 1870, and graduated from the Louisville Medical College in 1893, located in his home town and practiced his profession until his recent illness. Dr. Spence served as Captain of the Aviation Medical Corps during the World War. He represented his county in the legislature and his district as State Senator for twenty years and served his city as mayor for many intermittent terms. At the time of his death, he was chairman of Mitchell County Board of Health, Mayor of Camilla and representative of his county in the state legislature. It may be well said that he truly served his fellowman and was the most popular man in the county and widely known throughout the state.

Dr. John Kingsberry Maloy, pioneer citizen and physician of Telfair County, died at his home in Milan, Ga. on Feb. 11, 1927. He graduated from the Georgia College of Medicine of Augusta in 1881 having practiced seven years before the State Board of Medicine was organized, studying under Dr. Henry Oakley, a Canadian Physician at Hawkinsville, Ga.

He was president of the Telfair Medical Society and at one time of the Ocmulgee Medical Society and the Twelfth District Medical Society.

Dr. Maloy was 72 years of age, born and reared in Telfair County. He was a member of the Milan Baptist Church, serving as deacon for 50 years. He also took a prominent part in the affairs of his county and town.

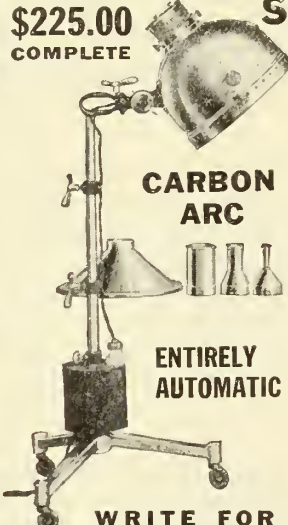
In his death the medical profession loses one of its most prominent figures, as he was an adept student in his chosen work, being untiring in his efforts towards serving humanity.

Funeral services were held at Sharon Baptist Church conducted by a life long friend, Rev. W. M. Williamson and O. A. Grant. The Milan Lodge had charge of the concluding service at the grave of which he was a charter member.

The pall-bearers were nephews, Dr. J. W. Maloy, Dr. John Fussell, Dr. Charlie Maloy, Dr. T. D. Fussell, Col. J. K. Whaley and Bill Whaley..

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1½-inch	.61	.60	.57
2 -inch	.80	.75	.72
2½-inch	.94	.90	.86
3 -inch	1.16	1.08	1.03
3½-inch	1.28	1.20	1.14
4 -inch	1.52	1.40	1.33

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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

Volume XVI

Atlanta, Ga., May, 1927

No. 5

THE COUNTY, DISTRICT AND STATE MEDICAL ASSOCIATIONS*

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Toccoa

In discussing medical organization, I have selected the title, "The County, District, and State Medical Associations," for the reason that there are certain characteristics peculiar to each organization, and on the other hand certain terms which will apply to the three societies collectively.

This is an age of organization. Every trade from the most menial to the highest business and professional vocations are organized. All recognize the power of unity.

Most trade and business organizations have for their purpose, the increase in their business and volume of trade. The medical organizations are unique, in that, it is their function to reduce their business. The medical profession by its constant effort to prevent diseases and to promote the health of the state, is the only profession I know of that is constantly trying to work itself out of a job.

First, we will consider the County Society. The County Society is an absolutely essential unit of medical organization. Our state and national associations cannot succeed unless the county societies properly function. It is in the county society where the eligibility of physicians is passed upon, and when a member is admitted into the county society he automatically becomes a member of the state association, and is eligible for membership in the A. M. A.

So we see the importance of admitting into the county society only those who are legally registered, and are of good moral, and pro-

fessional standing, and who do not support or practice, or claim to practice, any exclusive system of medicine. For after they gain entrance into the county society, they have, so to speak, a through ticket to the American Medical Association.

In many of the Georgia counties, there are only a small number of physicians, but our state parliamentarian has ruled, that two members can organize a county society. One, for President, and one for Secretary. So every county in Georgia should organize, in order that they may be represented in the State Association.

Although the number of physicians in many counties is so small, that it is not practical to have at their meetings a scientific program, yet there are many things that can be accomplished by having regular meetings. In all matters pertaining to the public health, the opinions of the physicians in the community are sought, so they should get together and have a full and frank interchange of views, that they may have intelligent unity and harmony on all matters pertaining to health conditions. For instance, if there is an epidemic of any kind in the county, and one doctor advises one method of dealing with it, and another doctor some other method, then the layity, or county officials are at sea as to what procedure to take. Likewise, in order to secure helpful legislation, the profession should be in harmony, and should advise with our legislative bodies, and by so doing could secure such laws as would protect the health of the community and safeguard many lives.

The Ellis Health Law has failed to pass in many counties by one or two physicians speaking indifferently, or disparagingly concerning it.

Also occasional meetings of the doctors in a county promotes mutual respect, and goodwill, and goes far to destroy petty jealousies

*Read before the Ninth District Medical Society at Sanatorium near Alto, Ga., March 16, 1927.

which often exist among fellow practitioners.

I have felt for a number of years that the District Society is rendering more service to a larger number of physicians of the state, than any other medical society.

With our good roads and automobiles the district meeting is usually accessible to all the doctors in the district. The meetings being held twice in each year gives every physician an opportunity to present a paper, if he desires, and many more should avail themselves of this privilege than do. Some of the very best scientific programs I have ever attended have been at district meetings. While the district society reaches a larger number of doctors than any other society, still there are perhaps 50% of the doctors in most districts, who do not attend these meetings, with any degree of regularity, so we should all form ourselves into a committee to inform the others what they are missing by not attending. Perhaps some stay away because they imagine themselves too busy to come, or for fear they might lose a call to some remunerative patient.

Membership in the State Association carries with it many advantages. The scientific programs are always good, and if well attended is equivalent to a short post-graduate course. The social entertainment is usually splendid, and more so now since the ladies auxiliary has added so much to this feature. Membership in the State Association gives each member a splendid monthly Journal, which ranks among the best state Journals in the United States. Membership entitles each member to the medical defense feature, if he happens to need it. The scientific and commercial exhibits are usually good and instructive.

One of the greatest fields of service of the State Association is in the line of public health work. To enlighten the general public on health problems, and by helping to secure such legislation as will aid in preventing diseases, and thereby prolonging and adding comfort to life. In contrast to the indifference of former days, popular interest in preventive medicine is now widespread and rapidly growing.

Without reference to any particular medical society, there has never been so much real

necessity for medical organization as there is today. There was never a time when the whole country was so running riot with legalized cults of the healing art as there is today.

Quoting from a recent article in the A. M. A. "The legalized cults—the sanipractor, naturopath, osteopath, and chiropractor, are a menace. The cultist may lawfully assume full responsibility for the life and health of every patient who applies to him for aid.

The law limits him only in the methods to which he may resort for diagnosis and treatment, and leaves him free to diagnose all diseases and injuries, and to treat all patients with such limited means as are at his command. If a patient is suffering from an eruption, and the chiropractor believes that he can be cured by manipulation of his spine, the chiropractor may lawfully take charge of the case, even though the patient has small-pox. If a patient has acute appendicitis, the naturopath may resort to the methods peculiar to his cult, leaving the patient to die because of the postponement of an operation, or of no operation at all.

In most states, the legalized cults are the sole judges of the qualifications of their own members.

Assuming that these statements are correct if the general public is to become enlightened as to the limitations of the cultist, the organized medical profession must take the initiative. One remedy that has been offered to eliminate these evils, is to pass what is known as the basic science act, such has been passed in Connecticut and Wisconsin. That is, that all persons practicing the healing art of whatever kind must pass an examination of a uniform minimum standard on the fundamental subjects of Anatomy, Physiology, Chemistry, Bacteriology, and Pathology—then he may practice any form of treatment he may desire. But the authors of this act feel that when one is well grounded in these fundamental subjects, he will not want to practice any cults.

Membership in, and active participation in the work of a medical society, is of great educational value to the physician. It affords personal contact with fellow practitioners in the courteous discussion of medical subjects

and professional problems and promotes mutual respect and goodwill.

Concise written reports of interesting clinical observations presented before medical societies, and for publication, are splendid means of self-education and furnish a valuable addition to medical literature.

The desire for recognition and honor is natural, but all cannot be President of the A. M. A., the Southern, or the State Association, but every reputable physician can be a member of his county, district, and state societies, and by so doing, better equip himself to serve those who employ him. After all, far more important than honor or recognition is the laudable desire which finds satisfaction in work well done, whether any one sees it is well done or not.

If we would get the most out of our professional lives, we should be constantly endeavoring to add to our knowledge and equipment as physicians, and I know of no better way than the systematic reading of medical journals, an occasional post-graduate course, and the attending of medical meetings both County, District, and State.

TRIPHAL

Nobl

Wiener med. Woch. 1926, No. 27

The author discusses the therapy of psoriasis and after discussing in detail the various remedial agents he directs attention to modern chemotherapy. Encouraging results have been obtained with gold preparations among which Triphal especially has proven its value in the treatment of psoriasis. Like the other gold preparations, this agent is administered intravenously and treatment is begun with very small doses (0.01 Gm. to 0.025 Gm. to 0.1 Gm. dissolved in 1 to 2 cc. of distilled water). After a few injections it can be perceived whether the healing process is or is not accelerated. By-effects are hardly ever observed. Ritter is the only author who has so far reported a case of severe gold-dermatitis but even in this case the patient was cured and no relapse occurred. The exact action of gold is not yet fully understood; it has been suggested that gold increases resistance of the affected tissue cells. It has also been observed that Triphal seems to sensitize the tissues, thus rendering a subsequent X-ray treatment more successful. Experience also shows that cases which are refractive to Triphal respond better to local anti-psoriatics.

ACUTE SUPPURATIVE OTITIS MEDIA*

S. J. LEWIS, M.D.

Augusta

It has been said that if every case of acute suppurative otitis media was regarded as a beginning mastoiditis, the results obtained in the handling of this condition would be far more gratifying. While this is quite as applicable now as when first observed, no such deference is usually accorded infected ears. On the contrary, middle ear disease is too often regarded a trivial affection, accompanied only by considerable discomfort and an inconvenient aural discharge.

Experience has shown that acute middle ear infection is fraught with many dangers. Not only does it occasion much loss of life, but it constitutes the most important factor in the production of deafness. Impaired hearing is always a misfortune, and, when of great degree, a colossal affliction, imposing not alone an incalculable personal sacrifice, but exerting an economic effect that is beyond computation. Deafness is not amenable to treatment; hence the solution of the problem depends on prevention. This subject should commend itself to the serious consideration of all physicians, particularly those who are engaged in general practice.

ETIOLOGY

The development of acute otitis media is dependent upon the presence of micro-organisms in the tympanic cavity. This invasion is usually effected through the eustachian tubes, although infection may be transmitted through the blood stream or the lymphatics; or, when there is rupture of the tympanic membrane, organisms may gain access by way of the external auditory canal.

Recent bacteriological studies in connection with middle ear inflammation indicate that the organisms responsible for this condition are divisible into two main classes; namely 1. The Noncapsulated Coccus (streptococcus); 2. Capsulated (diplococcus, or streptococcus mucosa).

Before rupture of the drum membrane, the infection is invariably of one type of organ-

*Read before the Tenth District Medical Society, Augusta, Ga., Oct. 28, 1926.

ism, namely, streptococcus, diplococcus, or streptococcus mucosa. After the tympanum has broken, establishing communication between the internal and external ear, the infection becomes mixed by secondary invasion. The organisms then found are: streptococcus and staphylococcus, diplococcus and staphylococcus, or streptococcus mucosa and staphylococcus. The purpose of this classification is for diagnostic and prognostic value, class 1, or Nonencapsulated group (streptococcus) indicating resolution within four or five weeks; class 2, denoting a more malignant process, amenable only to surgery and offering a more doubtful prognosis (Pittman).

Of the contributory factors in the production of middle ear inflammation, many may be referred to. One of the commonest of these is rhinitis due to acute coryza. In this the mucus membrane is swollen, causing more or less stoppage of the nose. Much force in the effort to expel the bacteria-laden nasal contents often forces infection into the eustachian tubes and into the tympanic cavities themselves. Taking of water into nose and mouth during swimming is also followed frequently by symptoms of otitis media, due to the water containing pathogenic micro-organisms. Intranasal abnormalities, such as turbinal hypertrophies and septal deflections, diminish aeration to the vault of the pharynx, and hypertrophied tonsils are frequently associated in the development of middle ear inflammation. Indeed, Dr. Wendell L. Phillips states that he has never seen a case of recurrent middle ear suppuration, in children particularly, unaccompanied by more or less lymphoid tissue in the vault of the pharynx.

Debilitating affections, such as rheumatism, gout and diabetes appear to predispose to the development of otitis media.

Scarlet fever, measles, diphtheria, typhoid fever, parotiditis, rickets and pneumonia are attended in a large percentage of cases by ear involvement.

Carious teeth and inflammation of the nasal accessory sinuses are prolific in the causation of this condition. (Phillips.)

While acute otitis media occurs in every season, it is more prevalent in the damp, cold months. In the series of cases observed in Baltimore by D. T. Smith, 47.3 occurred in

February and 23.6 in July. It is more common in the Northern countries than in the temperate and tropical zones.

Statistics bearing on the relative incidence of otitis media during the last few years are meagre. However, one statement appearing in *The International Medical Annual*, 1926, is illuminating:

"Statistics show that cases of otorrhea amongst school children have been reduced by at least one-half in ten years, while the proportion of cases at the age of admission to school remains unaltered."

Infants and children are more susceptible to this affection than are adults, occurring in the former most frequently between three and fifteen months. (D. T. Smith.) The peculiar susceptibility of the very young may, in part, be due to the anatomical differences in children. In these, the eustachian tubes are shorter and occupy a more horizontal position. Also, the pharyngeal orifices are larger. The migration of bacteria into the tubes and tympanic cavities is thus favored in the young. However, the children of well to do parents are attacked less often than those who are poorly nourished and ill-clad. Smith's observations in his collection of cases support this, as all of his patients were artificially fed children. Few of them had received any cod liver oil before admission. This fact, together with the finding that 60 per cent of the 30 patients who had rickets developed otitis media, suggested that an absence of fat-soluble vitamin A renders one more liable to middle ear infection. Observations by Daniels, Armstrong and Hutton (1923) showed that rats fed on a diet deficient in fat-soluble vitamin A developed middle ear inflammation, sinusitis and xerophthalmia, while those that were deprived of fat-soluble vitamin B, with low calcium diets, were not attacked by aural infection.

SYMPTOMS

The sufferer of otitis media becomes conscious of aural involvement by experiencing a sense of fullness in the affected ear. This is usually accompanied by a sensation of heat. The elevation of the body temperature is present in most instances—usually two or three degrees. Fever may be entirely absent, however, as is frequently observed in infants and children. This fact emphasizes the importance

of thorough otological examination in every case of suspected ear disease.

The most characteristic symptom of middle ear inflammation is pain. This, too, may not be present in the very young, or so slight that the only manifestation of discomfort is restlessness or grabbing at the ear. In most cases, however, pain does not supervene within a few hours following initial onset, and is described as an intolerable boring in the side of the head, unremitting in character and always exaggerated at night. Deafness and subjective noises make their appearance, adding greatly to the already wretched state. In some instances, tinnitus is not complained of, the intense pain occupying all of the sufferer's attention. The patient at this time presents a picture of profound distress that continues for a period ranging from 24 hours to two or three days, when spontaneous rupture of the tympanic membrane occurs, or when the condition is relieved by surgical intervention. Then the patient falls into quiet, restful sleep.

The absence of pain in certain cases is sometimes observed. Syphilis and tuberculosis are notable instances where this complaint is lacking. Previously ruptured drums offer no obstruction to drainage; therefore, acute middle ear inflammation in these conditions is not attended with much discomfort. The occurrence of these cases further emphasizes the necessity of inspecting the drum in all suspected aural conditions.

The physical exhaustion attending acute middle ear disease is often pronounced. This is especially noticeable in those attacks where relief has been delayed, and is explained by loss of rest and sleep occasioned by immoderate suffering.

Otorrhea makes its appearance within 24 hours to three days following initial symptoms, although a longer time may elapse before the discharge is noted. This is at first serous, changing later to pus. Examination will disclose the nature of the offending organism.

The objective findings in acute middle ear inflammation vary from a slight engorgement of the vessels of the upper drum segments, to a bulging and distortion of the entire mem-

brane. In addition, the inflammatory process frequently invades the posterior-superior canal wall, producing edema that obliterates any sharp line of demarcation between that structure and tympanic membrane. At first pink, the inflammation spreads until the whole drum surface is of a deep red. As secretion collects the membrane is pushed before it, forming an external convexity; by this time all land-marks have disappeared. At the point of greatest pressure, pus makes its appearance as a yellowish, bulging spot. Here necrosis takes place, as a result of compression of the tympanic vessels, with rupture following. Examination of the opening thus spontaneously made will reveal it to be one of irregular outline, the size depending upon the degree of tissue destruction that has occurred. The small perforations, if favorably situated, sometimes close; the larger ones tend to remain open permanently.

An additional physical sign noted in connection with acute middle ear suppuration is tenderness over the mastoid antrum. Kerri-son states that the relationship between the tympanic vault and the mastoid antrum is such that infection of the latter is rarely escaped when the former is involved.

COURSE

Aural discharge in acute middle ear suppuration will cease within a few days to three or four weeks, if the condition is favorably disposed. Usually no evidence remains to indicate former trouble, except perhaps, paleness and scarring of the tympanic membrane. In those conditions that do not respond to treatment, involvement of the mastoid cells is nearly always present.

The course followed by aural infection in infants and children is frequently quite different from that observed in adults. It is not uncommon for the malady to exist in the young without exhibiting any manifestations. Particularly is this true in those cases occurring in connection with the acute exanthemata. Moreover, it is interesting to note that acute otitis media, especially in children, is capable of spontaneous recovery. (D. W. Drury.)

DIAGNOSIS

The diagnosis of acute suppurative otitis

media rarely presents any serious difficulties. There are, however, several affections that simulate in one respect or other this condition. Impacted cerumen that has become swollen in the auditory canal, furunculosis of the auditory canal and myringitis constitute the more important. The history of the case—usually coryza and sore throat, followed by aural symptoms, together with the physical examination,—should leave no doubt as to the nature of the malady.

In addition to the frequent complication of mastoiditis, the following conditions have been reported as complications of acute middle ear suppuration: Parotitis (Wannamaker); uremia and paralysis of the facial nerve (Metzenbaum); paralysis of the sixth nerve. (Dupny.)

TREATMENT

Success in the treatment of acute otitis media depends largely on certain general measures. Rest in bed, especially during the acute periods of the disease, is very essential. The room occupied by the patient should be warm, but well ventilated. Free catharsis is indicated, even though its desirability is not apparent, as thorough purgation exerts a favorable influence in lessening aural inflammation. The diet should be liquid but nutritious. Later, as the more acute manifestations subside, this may be augmented by more substantial articles.

Naso-pharyngeal infection being the most common etiological factor in the production of middle ear disease, appropriate intranasal and throat medication should be instituted at the very outset of the illness. Nose drops containing menthol, camphor, adrenalin inhalant and olive oil is a much employed preparation. This combination facilitates cleanliness and clearer breathing by its favorable effect on inflamed mucus surfaces, adding greatly to the comfort of the patient. If desired, other drugs, such as argyrol or neosylvol may be used in conjunction. Instead of drops, aqueous or oily sprays are frequently prescribed. An alkaline mouth wash is very important and should never be omitted.

Measures for the relief of pain are early demanded. In most instances the application to the ear of a bottle of hot water, half filled,

or a bag of hot salt will be of considerable value. Usually, external heat suffices as an anodyne, but it may be supplemented by one of the milder pain-relieving drugs. The diaphoresis occasioned by these constitute an objection, however. Morphine should never be employed, as symptoms of much value may be masked by its use. Paregoric, in children, is permissible, but should be discontinued early.

The popular demand for ear drops during the period of greatest distress may be satisfactorily met by prescribing warm glycerine. This preparation's hygroscopic effect renders it useful in allaying pain, particularly when combined with carbolic acid in the proportion of 3 to 5%. It may also assist in rendering the auditory canal sterile for subsequent paracentesis. The employment of oil dropped into the ears should be discountenanced. The macerating effect on the canal epithelium and the gumming property of this is extremely undesirable.

If the treatment outlined fails, as indicated by continued pain and bulging of the drum, palliative means should be abandoned, and surgical measures resorted to. Spontaneous rupture of the tympanic membrane should never be allowed, if possible of prevention, as nature's process of effecting drainage entails destruction of tissue that cannot be repaired; hence the permanent perforation that is so frequently observed in neglected cases.

Whether to employ general anesthesia for the performance of paracentesis is often a problem. The operation is very painful, and many believe that satisfactory results are not attained without narcosis. There are others, however, who do not feel the necessity of anesthesia in these cases and never use it. More or less insensibility of the tympanic membrane is said to occur following the application to the drum of equal parts of cocaine, menthol and camphor. It is doubtful that any pronounced effect results from this, owing to the degree of inflammation that is present in the tissues where anesthesia is desired.

The preparations for incision of the drum membrane should include cleaning the auditory canal as thoroughly as possible. Removal of wax and debris, followed by irriga-

tion with a 1:3000 solution of bichloride of mercury will be sufficient in rendering the external canal practically clean. It is needless to state that instruments and other articles used in the operation should be sterile.

For effective drainage an incision extending from the posterior-inferior quadrant, near the tympanic ring, to the posterior-superior region, is usually sufficient. If Shrapnells' membrane and the posterior-superior canal wall are involved in the inflammatory process they should be incised, usually by a continuation of the incision just described. The method thus outlined is preferred, as important structures are not likely to be injured by the knife. Moreover, both the circular and radiating fibers of the tympanic structures are severed, a gaping wound resulting for the out-flow of secretion. A culture should always be taken as soon as the appearance of pus.

The treatment to be pursued following drainage of the tympanic cavity depends upon individual preferment. Many advocate swabbing the canal to free it of secretions, followed by the insertion of a gauze wick. This gauze strip should extend to the drum surface and be packed loosely in the canal; otherwise, the full effect of capillary attraction in promoting drainage will not be realized. In small children the precaution of covering the ear with a pad of gauze and securing to the head by a bandage is often advantageous. In the very acute conditions dressings of this kind should be changed frequently; as the drainage lessens, longer intervals may be allowed to elapse.

Irrigation of the middle ear by various antiseptic solutions has been recommended. Bichloride of mercury in 1:5000 or 1:10,000 solution, or boric acid, 1%, are commonly used. Strong solutions are productive of irritation of the canal wall and should not be prescribed over long periods. Much criticism has been directed at the irrigation method of treating otitis media, the theory being that it is conducive to the development of mastoiditis. Many contend that practical results disprove this.

The application of drugs for the relief of middle ear infection has been rewarded very indifferently. As has been suggested, this is

probably due to the variety of organisms involved in these cases. (D. T. Smith). Of the many preparations recommended, mercuriochrome, gentian violet, neutral acriflavine, acetic acid and argyrol are more widely used. For any one of these drugs to exert its greatest efficiency, application must be thorough. Filling the ear with the solution until every diseased area is reached is the only satisfactory method advocated. This may be preceded by an irrigation of hydrogen peroxide for the removal of secretions.

George B. McAuliffe, New York, has had success with ether in the treatment of middle ear symptoms. The method advised is to fill the ear with ether, allowing it to evaporate, the patient lying on the side during the procedure.

A. S. Schwartz, New York, recommends free incision of the tympanic membrane, followed by suction to free the middle ear spaces of purulent material.

The acute attack having been disposed of, further treatment should be directed toward remedying any existing abnormality. Nasal hypertrophies and septal deflections require correction. Infected tonsils or adenoid growths demand removal. The sinuses and teeth should be examined and given appropriate attention, if found defective. By these means subsequent attacks, and disaster, may be averted.

It will thus be seen that there are a multitude of remedies advocated in the treatment of acute suppurative otitis media. This fact at once indicates that the ideal in the management of this condition has not yet been reached. Until this is attained, dependence must be placed on thoroughness, whatever the treatment.

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THE UTILITY OF NON-SURGICAL BILIARY DRAINAGE IN CHRONIC INFECTIOUS ARTHRITIS

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Atlanta

The focal infections and their far-reaching potentialities for bodily evil and bodily distress have claimed much attention for a number of years. In many instances, the beneficial results following removal of diseased tonsils, diseased teeth, the comparative cleaning-up of the accessory sinuses and mastoids have been truly spectacular. Such happy incidents are matters of common history, and have occurred in the practice of nearly all physicians.

In this article, the writer wishes to call attention to the malign influence of a pathologic gall-bladder as bearing upon some cases of chronic infectious arthritis, and to report some instances where non-surgical drainage has seemed to greatly augment other remedial measures in the management of these distressing conditions.

That the gall-bladder may become infected, either from distant focuses in the body, through the blood stream, or that this small viscus may harbour various and sundry pathogenic bacteria, is admitted by all. Some of these "chronic gall-bladders" have long since passed the acute stage, and give but few local manifestations. The writer has seen numerous cases of chronic arthritis where the teeth and tonsils have been removed, where the gastrointestinal tract had been intelligently cared for, and still the trouble hung on. "Hope, long-deferred, maketh the heart sick," and many of these sufferers become both weary and impatient. If, therefore, there may be used an additional and helpful therapeutic measure, especially one that entails no danger, it would seem desirable that such a measure should be invoked.

Let it be understood that the writer does not advocate the omission of any of the recognized methods heretofore employed, nor that any of the measures heretofore found to be beneficial should be let off. The logical reason for non-

surgically draining the gall-bladder lies in the fact that there is abated, to at least a comparative degree, a fruitful source of toxemia.

In some instances, quite a number of these drainages, at intervals of from three days to a week or more, may be indicated. Generally, the patient, after a few drainages, notes enough mitigation of the lameness and distress to evince a desire that the treatment be kept up.

The writer has had under his observation about thirty of such cases. Five of these had previous surgical drainages of the gall-bladder and one had the gall-bladder removed. In those cases, where the treatment could be prolonged sufficiently, there has been a definite improvement. In six of the cases, only two or three drainages were taken, and no improvement ensued or was expected.

The writer will report several cases, in which non-surgical biliary drainage has seemed to definitely benefit chronic infectious arthritis of one or more joints.

Mrs. C. W. M., aged 50, quite stout, a sufferer from habitual constipation, with a history of malaria, complained of a lameness in right ankle and right knee of varying intensity. Most of the time she used a cane when walking. Her teeth had been removed, her gall-bladder surgically drained three years previously, and she had constantly taken cathartics. Her gall-bladder was non-surgically drained sixteen times, at intervals of from three days to a week. After the fourth drainage, there was a noticeable improvement. This improvement continued, and when she left for another state, she was comfortable, her soreness and lameness having practically disappeared. Her husband, a physician, learned the technique of this procedure, and promised to continue it at intervals of from a week to ten days. At the expiration of four months, advices from this lady indicate a continued improvement.

Mrs. A. B. D., aged 44, suffering from chronic arthritis of both ankles and the right knee, was referred by her physician, from a town about 60 miles out. She was on crutches, and was constantly taking cinchophen for pain. Her teeth and tonsils had been re-

moved; also her gall-bladder several years previously. Her gall-tract was non-surgically drained eight times in two weeks, after which she returned home, able to walk without her crutches, though not entirely free from lameness. Her family physician has kept up the drainages for about a year and a half. He writes me that she has but little trouble with her joints at present, has gained about 25 pounds, and, with the exception of some stiffness of the joints, is in a fairly normal condition.

D. C. C., aged 40, a merchant from a neighboring town, suffered from pain and lameness in his right wrist and elbow. His teeth and tonsils had been removed, he had had "electrical treatment," osteopathic treatment and chiropractic "adjustment." His appendix was removed about ten years ago. He was constipated, suffered with gas and indigestion, and was much discouraged over his continued disability.

He had twelve non-surgical drainages, at intervals of a week or ten days, at the end of which time his pain had diminished, his joints were more flexible, his mental attitude more optimistic. His family physician was taught the technique of this procedure, and it has been kept up for about eight months. He can now use his right arm fairly well.

In addition to the drainages, the writer has given 5-grain tablets of plain empirin at one or two-hour intervals, when needed for pain. Local application of methyl salicylate ointment (Mulford) has been recommended. The bowels have been kept open by a combination of bile salts and phenolphthalein, while the usual hygienic measures were recommended.

It is not necessary to prolong these reports; suffice it to say, that in every instance where proper cooperation was accorded, beneficial results have followed.

The writer submits this brief paper, believing it to be a real contribution toward the betterment of these chronic and distressing states, a method which entails no danger, moderate expense, and a minimum of effort and lost time to all concerned.

RENAL TUBERCULOSIS*

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Bainbridge

DEFINITION

An acute or chronic infection of the kidney, caused by the *Bacillus tuberculosis*, and leading, if not checked, to complete destruction of one or both kidneys. The acute condition forms part of a general military tuberculosis, and is of no interest from a surgical standpoint.

HISTORY

In 1757 Morgagni first described a case of renal tuberculosis; it deserves to be recorded that in 1872 an American, Peters, first removed a tuberculosis kidney. Long regarded as a pathological curiosity, it is only within the last twenty or thirty years that, with modern diagnostic refinements, the lesion has been shown to be present in 5-10 per cent of all early cases of tuberculosis. The recognition of this is an interesting example of the role of instrumental technique and its perfection through the aid of extra-medical sciences.

ETIOLOGY

The prime etiologic factor is the *Bacillus tuberculosis*. This is not always pathogenic to the kidney, as is shown by the fact that it appears in the urine occasionally in cases of tuberculosis where autopsy proves the kidneys to have been uninvolved. There seem to be necessary some predisposing or accessory factors which may be grouped as mechanical, toxic, bacterial, or circulatory injuries, or—convenient phrase for the concealment of ignorance—a tuberculosis diathesis. The disease is most common between the ages of twenty and forty, and males are more often attacked than females, the proportion being about three to one.

MODES OF INFECTION

1. Ascending infection from the lower genito-urinary tract. If this ever occurs it is very rare.

2. By direct extension from tuberculous lesions in adjacent organs, also rare.

3. By the blood-stream—in at least 80 to

*Read before the Second District Medical Society, Thomasville, Ga., Oct. 18, 1926.

90 per cent of cases. Usually, a tuberculous lesion is present elsewhere in the body—the mediastinal lymph nodes are perhaps the most common focus—but the organisms may enter the blood-stream through uninjured mucous membranes and so, in rare cases, set up in the kidney the primary seat of infection.

PATHOLOGY

The disease is often originally unilateral and may remain so for from one to seven years, a prognostic and therapeutic point of extreme interest. Four types of lesions are recognized:

(a) The miliary, where the cortex is studded with tubercles which eventually extend throughout the rest of the kidney substance. In this type most of the other organs are usually simultaneously involved.

(b) The pyramidal ulcerative type, where the lesion begins in the renal papilla.

(c) The pyelitic type, where a tuberculous ulcer of the pelvis is the first lesion.

(d) The massive, caseous, tuberculous abscess type, by far the most common. The mechanism of production of this type is more or less as follows: Bacilli reach the glomeruli where, favored by a relative circulatory stasis, they set up an inflammatory reaction, pass through the endothelial lining of the capillaries and lodge in the visceral layer of Bowman's capsule. Here tubercle formations begin with coagulation necrosis and caseation, and by confluence of several such areas, a tuberculous abscess is formed. The rapidity of extension depends on the balance between virulence and resistance, but in all events there is ultimate complete destruction of the kidney unless operative interference intervenes. In the later stages there is usually pyelitis complicated by a secondary infection and more or less stenosis of the ureter favoring hydro- or pyo-nephrosis.

SYMPTOMS OF CHRONIC RENAL TUBERCULOSIS

(a) Pain. This rarely referable to the kidney. It may occur as a dull ache in the posterior lumbar region, more pronounced at night or in the female during menstruation, owing to increased blood in the organ. Renal pain, however, is usually a late symptom.

Ureteral colic occurs in cases of the pyelitic ulcerative type where a blood clot temporarily

obstructs the flow of urine, or in the caseous type where, with extension of the lesion to a calyx, caseous material may from time to time enter the ureter.

The typical pain, however, is one referred to the vesical neck, the perineum, the glans penis or the clitoris, and due to acid urine, or, more probably to referred pain from the close association of the hypo-gastric plexus with the nerve supplying the kidney.

(b) Frequent micturition day and night is a cardinal symptom.

(c) Painful micturition.

SIGNS

(a) Fist percussion over the kidney may cause exquisite sensitiveness.

(b) Radiographic pictures are usually negative in the early stages.

(c) Cystoscopy usually shows areas of inflammation in the bladder especially around the opening of the ureter from the affected kidney. There may be ulcers in the early stages which heal and cause diverticula later.

(d) Ureteral catheterization with separate collection of the urines is the main point of reliance.

(e) Urine. On inspection the urine from the infected kidney is of a light lemon color and hazy. The reaction is usually acid. On microscopic examination pus and tubercle bacilli are found. If the bacilli cannot be demonstrated guinea-pig inoculation should be done.

The urine from the opposite kidney may show evidence of toxic nephritis, in the shape of albumin and casts. But these frequently disappear on removal of the infected kidney.

DIAGNOSIS

The typical syndrome of renal tuberculosis is: frequent and painful urination with vesical pain. Urine hazy and light lemon-colored, and on examination showing pus and tubercle bacilli. It is important to note that both pus and tubercle bacilli must be present together to establish a diagnosis. In general, only ureteral catheterization will determine which kidney is involved.

PROGNOSIS

Without operative interference there is practically no hope. The operative mortality varies from 3 to 9 per cent. About 60 per cent

of the cases make a permanent recovery following operation.

TREATMENT

Early nephrectomy with subsequent climatic and medical treatment.

FURTHER OBSERVATIONS ON THE TREATMENT OF DIABETES MELLITUS*

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Since Banting and Best isolated insulin medical literature has been full of articles on the treatment of diabetes. At first the preparation was acclaimed by the lay press as a "cure all" for diabetes and the diabetic was led to believe that diet was no longer important. This is not true; on the contrary diet is, if anything, more necessary than it ever was. The pioneer work along the lines of diet was done by Allen. He introduced the under-nutrition method. This was a great step forward, but we now know that it is no longer necessary to undernourish our patient. Herein lies the value of insulin. If we are unable to free the urine of sugar and reduce the blood sugar to normal on a calculated diet; then, and not until then, is insulin indicated. I am speaking, of course, of the usual uncomplicated case of diabetes, i. e., one showing no symptoms of acidosis or coma.

There are several satisfactory methods of constructing a diabetic diet. Two years ago at Washington, Ga., I presented to this society the method I use in the treatment of my own cases. In the report of the following cases this method will be again presented.

Case 1. Male, age 49, weight 64 kilo., height 178 cm.

This patient complained of weakness, especially in legs, a bad taste in mouth, thirst, frequent urination, hunger, and loss of sexual power. He had also lost 15 pounds in weight. About three years ago he was operated upon and a kidney stone removed. At that time sugar was discovered in urine, but the glucose tolerance test did not show an increased blood

sugar the readings being as follows: fasting stomach 80 mg., 1st hour 130, 2d hour 140, and 3d hour 110. Since that time he has gotten along very well until about a year ago when he came to me with the above complaint. Physical examination showed evident loss of weight, weakness of legs evidenced by inability to walk any distance and a slightly staggering gait. The urine was increased to about 3000 cc. in the 24 hours with more at night than in day. Albumen and pus was present, and a rather large amount of sugar. The albumen and pus is due to a stone which is known to be in the left kidney. The blood sugar on a fasting stomach was 275 mg.. The first hour after taking 100 grams of glucose the blood sugar was 400 mg., the second hour it was 430, and the third hour 333 mg. He was put to bed on a maintenance diet. This was determined as follows: the total calories required to maintain body weight while at rest in bed varies with sex, age, height, and weight. First the surface area of the individual is determined in square meters from the weight in kilos and the height in centimeters. To do this one must refer to the surface area chart prepared by DuBois. In this case it is 1.85 meters. This multiplied by 38.5 (the number of calories required per hour per meter) and by 24 (the number of hours in a day) is the maintenance diet in calories. To make up for loss of energy, etc., from turning in bed this is increased by 10%; $1.85 \times 38.5 \times 24$ is 1684, plus 10% or 168 is 1852 cal. It is now necessary to calculate the amount in grams of protein, fat, and carbohydrate. We do this from the Hannon chart. This chart is constructed so that the fatty acid substances in the diet in relation to the glucose substances in the diet is as 1.5 to 1. It is necessary that this relation be not higher than 1.5 to 1 in order to prevent a pathological acidosis. The chart assumes the protied to be 10% of the total calories, and gives for 1852 calories P-45, F-151, C-63. The diet actually given was as follows:

	Protein	Fat	Carbo- hydrate
Breakfast			
Grapes 100 gm.	1.0	1.0	14.6
Butter 20	.2	17.0	
Egg (1) 50	6.7	5.3	
Cream 30	.8	5.6	14

*Read before the Eighth District Medical Association, Royston, Ga., August 11, 1926.

Bacon 30	3.2	19.4	
Tomato 100	.9	.4	3.9
	<hr/>	<hr/>	<hr/>
	12.8	48.7	19.9
			Carbo-
Dinner	Protein	Fat	hydrate
Beef roast 60 gm.	13.4	15.7	
Potatoes 90	1.8		15.6
Butter 30	.3	25.5	
Cream 50	1.3	9.3	2.3
Vegetables 100 5%	1.1	.1	3.8
	<hr/>	<hr/>	<hr/>
	17.9	50.6	21.7
			Carbo-
Supper	Protein	Fat	hydrate
Orange juice 100 gm.	.8	.2	11.6
Egg (1) 50	6.7	5.3	
Butter 30	.3	25.5	
Bacon 30	3.1	19.4	
Rice 50	.9		10.6
	<hr/>	<hr/>	<hr/>
	10.8	50.4	22.2
Total	42.6	149.7	63.8

On the above diet the patient became sugar free within a week. The subsequent history of this patient is interesting. When the diet was increased and the patient allowed to be up the sugar returned. It was absolutely necessary for him to be at his place of business, so it was decided to give insulin. In order for a patient to be at work it is necessary for him to have an increase of 40% at least in diet. To do this it required 25 units of insulin a day. This was started at 10 units and gradually increased, as was the diet. About this time he contracted a cold which caused a disturbance in kidneys with large amounts of blood and pus in urine. This necessitated that he go to bed again and that the diet and insulin be reduced. This was done because the patient would not take all of diet prescribed. In addition he was given caprocal. The final outcome was that he became sugar free on a full working diet with 25 units of insulin. At the present time he is on the same diet but is only taking 10 units of insulin daily and is sugar free. The kidney stones in this case undoubtedly have something to do with the diabetes.

Case II. Female, age 62, weight 70 kilo., height 168 cm. Complaint: dimness of vision.

A diagnosis of diabetic retinitis had been made when she was referred to me. Her urine contained sugar, and the blood sugar was increased. Her diet worked out as above outlined gave 1614 calories with P-40, F-142, C-55. On this diet she became sugar free in a few days. Since she did no strenuous work we were able to increase her diet to a working maintenance diet without the use of insulin and without the return of sugar. Her eyes have improved; however, the prognosis for complete recovery is bad.

Case III. Male, age 38, weight 70 kilo., height 172 cm. No complaint.

The sugar in urine was accidentally discovered preceding an operation for removal of tonsils. He had also recently received quite a severe mental shock. The tonsils were removed under local anæsthesia. It was just after this that I saw him. He had a blood sugar of 290 mg. per 100 cc. The glucose tolerance test showed at the end of the first hour 500, 2d hour 666, 3d hour 570 mg. per hundred cc. of blood. The urine showed diacetic acid and acetone. He was put to bed on 1900 calories with P-46, F-156, C-65. On this diet he did not become sugar free nor did the acid bodies disappear. Five units of insulin daily cleared up the sugar and the acid bodies. Due to pressing business it was necessary to put him on a working maintenance diet and to give enough insulin to take care of it. This is done by determining the number of grams of glucose in the 24-hour specimen of urine with the patient on a known diet, and giving one unit of insulin for every two grams of glucose actually in the urine or calculated to appear on a full diet. In this case 15 units was sufficient to take care of the urinary sugar. At present this patient is taking 10 units and is sugar free.

These three cases are sufficient I think to show the method employed. I call attention to the fact that all patients were in bed at first, and while two of them required insulin this might not have been necessary had the two male patients been able to afford more time.

The method of procedure then—is make a diagnosis using the glucose tolerance test if necessary. It might be well to recall the usual symptoms of diabetes. These are loss of

weight, excessive thirst, hunger, polyuria, itching of skin. Symptoms are not always present, in fact it is unusual to find all of them present in one patient. Usually there is polyuria, increase of appetite and thirst, and generally constipation. The urine contains sugar and the blood sugar is increased. A blood sugar below 130 mg. may be considered normal. Other symptoms encountered are general weakness, transient paraplegia, bad taste in mouth, and inability to sleep. Retinitis and carbuncles may be considered as complications. Frequently arteriosclerosis with high blood pressure is present; also chronic nephritis.

After the diagnosis is established I put the patient to bed in a hospital if possible. Then put him on his maintenance diet or rather his basal caloric requirement while at rest in bed and keep him on it until he is sugar free or until it appears that he will not become sugar free unless given insulin. This requires a week or more. If he becomes sugar free increase the diet by 5 gms. C and by 20 gms. F at intervals of three or four days until three increases are made. Now increase the protein from 5 to 8 grams. This is done because if the protein is low relative to the other constituents of the diet there is difficulty in balancing the diet. It is actually not necessary to give more protein than the amount required to maintain nitrogen equilibrium. It is claimed that 0.5 gm. per kilo is sufficient, but 0.66 gm. is more often used. The patient is allowed to be out of bed as the diet is increased.

While the patient is in the hospital I try to interest him sufficiently so that he will work out his own diet. I ask him to buy a book "Insulin" by Macleod and Campbell and to study it. Also I require that all foods be weighed; this necessitates scales. Generally the patient soon learns the value of various foods; what food he may take and what he may not. He knows the 5 and 10% vegetables and fruits, the fat value of butter, bacon, and cream, the reason he cannot take bread, etc. This time spent in teaching the patient simplifies the treatment a great deal.

If sugar does not disappear from the urine on the basal caloric diet or if it reappears

after any one of the increases in the diet insulin is indicated. Before insulin is given collect a 24-hour specimen of urine and do a quantitative test for sugar. Unless the blood sugar was done at the beginning do one now. Suppose there are 20 gms. of sugar in the 24-hour specimen, it will require one unit of insulin for each 2 to 4 grams of sugar. In a case like this I usually start with 5 units daily and increase by 5 units every 2d or 3d day until the sugar disappears. When the sugar disappears the diet is increased. This is continued until he is on a working diet. It requires more time this way, but I regard it as safer, especially for the man who has not a laboratory at his disposal, than to calculate the required amount of insulin and give the whole amount from the beginning. Too much insulin is worse than not quite enough. In any case the 24-hour specimen should be tested daily until we are sure that we have the proper diet and the correct amount of insulin.

If it becomes necessary for the patient to take insulin after he goes home I teach him how to administer it, and require that he know the symptoms of hypoglycæmia and its treatment. I teach him to examine the urine for sugar, acetone, and diacetic acid. If at any time sugar appears he reports to me before increasing insulin. From time to time it is well to have a blood sugar done especially in an insulin case, because I believe that after a patient has taken insulin for a considerable time the pancreatic rest afforded thereby is sufficient so that the pancreas forms more insulin thus increasing the possibility of insulin shock. I have found it possible to reduce insulin from 25 units a day to 5 units a day. It may be that in this case I will be able to discontinue the insulin entirely.

I have given only one method of calculating the diet. It may be that the charts referred to above are not available to all. However, most present day text-books contain the charts of DuBois and DuBois and Aub. The chart of Hannon I have not seen except in the original article. Those who cannot consult the Hannon chart may determine the protein, fat, and carbohydrate according to the formulae given below:

P— $\frac{2}{3}$ gm. per Kg. body weight.

M—10 P

C—	—————	
	30	
	M	P
F—	—————	—————
	10	2

M—total calories

P—Protein

F—Fat

C—Carbohydrate

Or one may multiply the weight in kilo by 24 to determine the total calories for a person at rest and by 30 for one at work. This latter method is to be used only when no other is available.

In children the caloric requirement is calculated according to weight.

Up to 10 kg. give 55 cal. per kg.

10 to 15 kg. give 50 cal. per kg.

15 to 20 kg. give 50 cal. per kg.

Children are given two to three grams of protein for each kilo of body weight.

I mentioned above that the potential ketogenic or fatty acid substances and the anti-ketogenic or glucose substances in the diet should approximate 1:5 to 1. It is said that 0.46% of the protein and 0.9% of the fat may be converted into fatty acid, and that 0.58% of the protein, 0.1% of the fat, and all the carbohydrate into glucose. In the case cited (Case 1) the diet was P-45, F-151, C-63.

The ketogenic value of this diet is

0.46 P 0.9 F

The antiketogenic value is

0.58 P plus 0.1 F plus all C
20.3 plus 135.9

Substituting we have
26.1 plus 15.1 plus 63

156.2 1.5

Or — or —

104.2 1

Experience teaches that on a diet with this relationship acidosis is much less likely to occur. This, of course, reduces to a certain extent the amount of fat. Many men give a diet higher in fat and claim that no acidosis results. But we know that in diabetes there is a defective fat metabolism as well as a defective carbohydrate metabolism. Then, too, the diet of a normal individual contains a

relatively small amount of fat with a large amount of carbohydrate. Furthermore a high fat diet increases the monotony and diminishes the variability of the diet.

A marked increase in the ratio of the fat to the glucose undergoing metabolism will cause acetone bodies to appear in the urine and the blood. In small amounts they cause no symptoms, but with increased production or decreased elimination a toxic reaction results. Milder degrees of this state constitute acidosis while severe degrees result in coma. The symptoms of acidosis are restlessness, drowsiness, slight difficulty in breathing, acetone and diaetic acid in the urine. Vomiting is common in children and may occur in adults. The symptoms of coma are dehydration, air hunger, acetone odor to the breath, complete stupor or unconsciousness, constipation, sometimes abdominal pain, and sugar in the urine with increase in the blood sugar. One must be careful not to confuse diabetic coma with coma from other causes. Apoplexy or nephritic coma may occur in a diabetic.

A patient with symptoms of acidosis should be treated as follows: give 40 units of insulin and at the same time give one gram of sugar for every unit of insulin; in four hours give 20 units of insulin if necessary. In addition give large amounts of water, about a half pint per hour. These patients should be in bed and kept warm. An enema ought to be given, especially to children. Such cases should be cleared up as quickly as possible because we cannot tell just how severe the condition is by examination of urine and blood nor by the clinical signs. If infection is present the condition should be regarded as very much worse than if there is no infection. As soon as possible dietetic treatment is begun.

In the treatment of a coma patient speed is essential. The method of procedure is to give 100 units of insulin intravenously at once. This is followed by 10% glucose intravenously, alkalies 15 to 30 grams in 5% solution by rectum, salt solution subcutaneously, and circulatory stimulants such as digitalis and coffee. A cleansing enema should precede the rectal administration. The 10% glucose should be given at the rate of 10 cc. per minute, and the injection discontinued if the pulse

risers 10 beats per minute. Too much fluid except intravenously can hardly be given a diabetic coma patient. To avoid hypoglycæmia it is well to use a retention catheter and examine the urine every hour; however, there is little danger in this if 1 gram of glucose is given for each unit of insulin. The initial dose of insulin is followed in two or three hours by 20 or 30 units repeated at this interval until the patient comes out of coma. The insulin is always accompanied by one to two grams of glucose for each unit. As much as 500 units has been given to a coma patient in 24 hours. The patient should be kept warm throughout. As the patient improves the insulin is reduced and the amount of carbohydrate correspondingly diminished. This is kept up until the patient is taking 20 units three times a day and about 60 grams of carbohydrate forming food with no fat or only a small portion. More sugar will be required if the patient is much overweight.

Some men, notably Joslin, do not use alkalis or advise against it. Theoretically alkalis are indicated. This is explained by W. R. Campbell as follows:

"Palmer and Van Slyke have shown that the administration of 1 gm. of soda bicarbonate per 84 pounds of body weight raises the CO_2 combining power of the individuals blood one volume per cent. Since, in most cases, we will be dealing with a patient whose CO_2 combining power will rise to 50 volumes per cent with katabolism of the ketone bodies, it seems safe to use 20 gms. of soda bicarb. per 84 pounds of body weight, thus raising his CO_2 combining power to 70 volumes per cent—a value still below the upper normal limit—and alkalosis will be avoided. But in the occasional case the ketones are destroyed, and insufficient alkali is thereby released to raise the CO_2 combining power. If the CO_2 combining power rises but to 25 volumes per cent that patient will probably still die of acidosis. In this instance the addition of 20 volumes per cent to the CO_2 combining power is a very decided factor in the relief of the patient. The amount of alkali necessary in the average case will be about 30 grams of sodium bicarbonate or its equivalent."

The average case of coma has a CO_2 com-

bining power of about 30 volumes per cent or less. The normal is about 70 per cent. Consequently I would use about 30 grams of soda for the coma case. In acidosis soda is usually not necessary but small doses may be given.

I wish to call attention now to a few points in the treatment I have not mentioned. In the aged diabetic the protein should be changed from the amount he has been taking very gradually. It should be about 20 grams above the calculated requirement. In reality the whole diet should be very gradually changed. In cases with myocardial disease the protein should be relatively high. The overweight diabetic should be reduced to slightly under his ideal standard weight; it is better to keep the diabetic slightly underweight.

As to the etiology of diabetes I believe that a pancreatitis precedes diabetes, that focal infection has a decided influence in its development. I call attention to three cases, one had a kidney stone, one a gastric ulcer, one tonsillitis. It has long been thought that overweight was a factor in the causation of diabetes. I believe this to be true but think the factor responsible for the overweight is also responsible for the diabetes. Most overweight individuals are huge eaters and also take little exercise. That overweight alone is not responsible the fat pituitary individual is cited. Such patients do not have diabetes.

SUMMARY

1. Three cases of diabetes are reported.
2. A method of calculating the diet is given in detail.
3. Education of the patient is emphasized.
4. The treatment of diabetes, acidosis, and coma is given as I employ it.
5. Attention is called to the possibility of infection as a cause of diabetes.

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nature's defences, there can be only one outcome, but by wise and individualized care of the borderline cases the mortality may be lowered.

During the Civil War the mortality was 90%. In 1902 Fenner reported a 74% mortality from Charity Hospital, New Orleans. In 1916 Goltman shows a reduction to 60.8% operative mortality in the Memphis General. Wallace reporting 1200 cases from the British Expeditionary Force in France in 1916-17 has a 53.9% operative mortality or a total mortality including non-operated cases of 60.2%. Lockwood, Kennedy, et al., in 500 cases have a 51.97% operative mortality.

	No.	%
Cases admitted to Grady Hospital.	69	
Moribund on admission.....	3	
Operated	66	
Died	40	60.6
Operated cases dying 1 to 7 hrs.		
after adm.	8	

RESUSCITATION

If these 8 cases died in from 1 to 7 hours after admission, operation certainly did no good and possibly harm. Would not some of them have reacted to resuscitative treatment had operation been delayed a few hours and thereby have been in better condition to stand the added shock of a prolonged anaesthesia and exploration? The English authors are strong advocates of such a course and their lower *operative* mortality is in part explained thereby. Had these 8 cases been excluded the operative mortality in this series would have been 55%. Other factors influencing this high mortality are: all negro patients, many drunk on admission, several shot more than once, intestines loaded with fecal matter, while in France almost all the operative cases had an empty small intestine.

What constitutes inoperability? This is a question for the individual surgeon to decide but a few indications are fairly constant. The pulse is very important. A patient in profound shock with rapid, running pulse or pulseless cannot stand added operative shock. Lockwood found that patients with a pulse of 120 or more fared far better under expectant treatment for a few hours *unless* ac-

TREATMENT OF GUN SHOT WOUNDS OF THE ABDOMEN*

REPORT OF SIXTY-NINE CONSECUTIVE CASES

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This paper is based on the study of 69 consecutive cases of gun shot wounds of the abdominal cavity treated in Emory University Division of Grady Hospital from 1922 to 1925 inclusive. Compared with series reported in time of war, it is not large, but is one of the largest yet reported in time of peace. The study is undertaken because of the serious problem that abdominal gun shot wounds present to the Department of Surgery in any Emergency Hospital, and because of the general broad surgical principles applying to other surgery of the abdomen. These cases are not reported because of a low mortality, to the contrary, the mortality is high.

MORTALITY

Gun shot wounds of the abdominal cavity have a high mortality because of their character. When irreparable damage is done to

*Read before the Fulton County Medical Society, Atlanta, Ga., July 15, 1926.

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tive hemorrhage was suspected. In this series with exception of one case of hemorrhage from the liver, not a single case with pulse rate over 120 survived operation. Also it was noted that in every case with a red blood count between 3 and 4 million much free blood was found from active hemorrhage.

PRE-OPERATIVE TREATMENT

1. Place patient in bed with as little movement as possible.
2. Immediate examination and red blood count.

If restless, dyspneic, exsanguinated, low blood count, with a rapid or *rising* pulse hemorrhage should be suspected and operation performed at once.

3. If in moderate or profound shock, face bright but extremities cold and clammy, pulse weak and running or pulseless, resuscitative treatment should be resorted to, as follows:

Rest and relief of pain; Morphine and Hyosein, moderate dose.

External heat (most important); hot blankets, hot water bottles, electric pads if available.

Elevation of foot of bed.

Fluids: 1000 cc. saline with 1 cc. adrenalin intravenously, introduced very slowly. Some authors favor hyperdermoclysis, others 5% glucose and insulin.

Stimulants: Caffein intravenously helps a failing respiration, camphor in oil recommended strongly by the English, digifoline intravenously.

When the general condition improves, pulse becomes stronger, and blood pressure rises to neighborhood of 100, operation should be performed immediately as a second condition of shock is likely to supervene and the golden moment be lost. Should the patient not respond to this treatment he certainly could not have stood the added shock of early operation.

OPERATIVE TREATMENT

During the movement of a patient to the operating room great care should be exercised to prevent a lowering of the body temperature. Patient, while in bed, should be wrapped in a warm blanket with a 12-inch square hole

over the abdomen and this should not be removed during operation. A warm amphitheatre is important. If practical, an X-Ray aids in tracing the course of the bullet.

ANAESTHESIA

The type of anaesthesia has much to do with the outcome. Many patients have vomited and aspiration is unavoidable. Cold ether vapor increases the secretions and further lowers resistance by lowering the intrathoracic temperature. Warm ether vapor has proven to be much more satisfactory and less dangerous. When obtainable, nitrous oxide and novocain appear to be the anaesthetic of choice in these poor risks.

In this series:

	Recovery		
	No.	Died	Recovery
Nitrous oxide and novocain	3	0	3
Severe cases with 7, 4 and 3 perforations.			
Novocain alone	3	3	0
Extremely poor risks.			
Cold ether vapor	41	24	17
P. O. pneumonia	8	6	2

• TECHNIQUE

Slow intravenous saline should be started with the operation. A long incision permits examination of gut intra-abdominally, evisceration adds to shock. All authors strongly condemn washing out the abdominal cavity as particularly dangerous. Soiling is removed with sponges wrung out in hot saline. No fluid must be left in the abdomen as it spreads infection, dilutes the lymph, and necessitates drainage. Avoid resection; if necessary end to end anastomosis is least dangerous.

DRAINAGE

The question of drainage next arises, and to arrive at satisfactory principles to follow, it is necessary to review briefly the anatomy and physiology of the peritoneum.

ANATOMY

The peritoneum is a large lymph sac, closed in the male but open at the oviducts in the female. Its walls are composed of an endothelial layer and a basement membrane attaching it to various organs and to the retroperitoneal space, which is richly supplied with lymphatics, blood vessels, nerves, etc. It has a surface area about equal to that of the

skin, hence, all of its surface is never involved.

PHYSIOLOGY

In 1902 Robinson showed by experimentation that the chief functions of the peritoneum are absorption and exudation, and that the diaphragmatic area is the primary locality of peritoneal absorption. The omental area is next, followed by the enteronic. (Deaver.)

Exudation is entirely protective. At the slightest injury the peritoneum pours out lymph containing phagocytes, leucocytes, and antibodies in an effort to neutralize the toxins and imprison bacteria to be destroyed by the leucocytes. The resistance of the peritoneum to infection is greater than that of most other tissues and its ability to take care of infection is becoming more and more recognized.

Horsley in 1920, stated that drains in the peritoneal cavity did little more than stimulate the outpouring of protective lymph and prevent positive pressure in the abdominal cavity.

The application of these principles to gun shot wounds has to be modified because if seen early active peritonitis has not developed, but traumatic injury to peritoneum and intestine is present. In these cases drainage does little more than draw off the protective lymph nature's great defense has poured out and thereby leaves what infection there is present with limited phagocytic and leucocytic action to combat it. Manifestly, in multiple wounds the whole area cannot be drained, and certainly no additional stimulus is necessary for the production of lymph. Further, every drain increases operative and post-operative shock and the intra-abdominal pressure is lowered during the period of post-operative shock, thereby causing a venous congestion in the mesenteric vessels and a consequent cerebral anemia. Operative shock is extremely important in these cases because many never respond, and should be treated first, last and always as the paramount condition at the time.

The above principles of non-drainage apply to multiple wounds of the small intestine, stomach and solid viscera. Wallace, Fraser, Drummond and others hold these views.

Lockwood, Kennedy, et al., place a drain in the pelvis if excessive soiling is present and close the abdominal wound.

LARGE INTESTINE

Wounds of the large intestine are on a different basis: the ascending and descending colon, sigmoid and rectum are in such anatomical position as to be frequently wounded with no other gut involvement; the content of the large bowel is richly supplied with colon bacilli and other bacteria, therefore highly infective; also, these are the portions of gut not covered posteriorly by peritoneum in the majority of cases and a bullet may penetrate to the retro-peritoneal spaces. This last type of wound is especially dangerous because of the development of cellulitis and lymphangitis with no peritoneal protection, and is analogous to cellulitis and lymphangitis of other regions, such as the extremities, which are always serious and often fatal. The wounds demand drainage to provide stimulus for the production of localizing adhesions and free exit for the products of infection. Other conditions on a similar basis are; retroperitoneal appendicitis, injury of cellular tissue around the kidneys subdiaphragmatic abscess, etc., where prolonged drainage is required. In wounds of the back, care should be exercised not to convert a retro-peritoneal condition into a peritoneal one and the reverse is also true. To sum up:

1. Wounds of the small intestine, stomach and solid viscera do not require drainage except occasionally in the pelvis for excessive soiling.
2. Wounds of the large intestine demand local drainage, also wounds of the bladder.

With several surgeons employing their own individual judgment, this series shows:

	No.	%
Non-drainage	9	
Recovered, 3 with extensive gut injury, 4 of solid viscera	7	
Died, P. O. pneumonia	2	
Mortality		22
Drainage	36	
Recovered	15	
Died, exclusive of 2, 1 to 7 hr. deaths	19	
Mortality		68.8

POST-OPERATIVE TREATMENT

The after care is extremely important in these cases and should be carefully directed by the individual operator. After the period of post-operative shock, whether he lives or whether he joins the ranks that swell our mortality is largely dependent on intelligent, energetic treatment.

1. Protection. When it is considered that 8 deaths in this series were from P. O. pneumonia, it cannot be too strongly urged that patients be guarded against exposure in transit from the operating room and after reaching the bed. External heat and plenty of it.

2. Position. Prone until recovery from shock, then exaggerated Fowler's to prevent absorption through diaphragmatic and omental peritoneum and to give the aid of gravity to the reversal of the lymph current and venous blood.

3. Sedatives. Enough to keep patient quiet and to limit peristalsis and the excursions of the diaphragm which acts as a suction pump in the absorption of toxins.

4. Food. Nothing by mouth or rectum until normal peristalsis is restored as shown by passage of gas or peristaltic waves over the abdomen. This will usually occur in 36 to 48 hours.

5. Salines. Hypodermoclysis of 100 cc. given very slowly every 6 hours; 5% glucose is also excellent.

6. Blood transfusion cannot be recommended too strongly in these cases and every effort should be made to procure it. With the Soresi method now in use at the hospital it is not necessary to remove the patient from the bed or to move him at all. Fresh blood not only supplies volume to stimulate the circulatory system and slow the heart action (it is well known that the heart rate is higher with a small volume of fluid), but most important is the increased capacity of the blood to carry oxygen to the failing vital centers in the brain. If the rudder is lost the ship founders, and so it is with the body if the vital centers fail.

7. Distention. This should be watched for and treated early. If the rectal tube does not suffice, small doses of pituitrin in conjunction with the tube will usually clear up the trouble.

8. Vomiting. This condition is serious and if it does not respond to simple remedies gastric lavage is required. For this purpose the duodenal tube is indispensable because it can usually be swallowed without the violent retching and allows the patient to drink water by mouth which is siphoned back through the tube. If the patient can bear the tube, it may be left to descend into the duodenum and with the free end attached to the head of the bed will act as a funnel for gas working up from the intestine, relieving distension.

At the time of discharge the patient should be instructed regarding diet and should be told to return to the hospital if ever seized with an attack of vomiting.

In conclusion, I wish to express my appreciation to Dr. James L. Campbell, Chairman Department of Surgery, for permission to use the records.

TREATMENT OF EDEMA

PROF. DR. AUGUST HOFFMANN

Jahreskurse für ärztliche Fortbildung 1926,
H. 2, p. 1

The two mercury preparations Novasurol and Salyrgan possess marked diuretic properties. Diuresis is usually prompt and persists for from 7 to 8 hours. The treatment is begun with small doses of 0.5 cc. If these are well received, the dose is increased to 1.5 cc. the following day. The author was able to bring about a prolonged and copious diuresis with a combination of Salyrgan and Digitalis.

HOTELS AND RATES ATHENS

CLAYTON

Rates \$1.50 to \$2.00

GEORGIAN

Single \$2.00 to \$3.50

Double \$3.00 to \$6.00

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Rates \$1.00 to \$2.00

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Single \$2.50 to \$3.50

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Rates \$1.00 to \$1.25

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Profession of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

MAY, 1927

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

PERIODIC HEALTH EXAMINATIONS

During the past year the benefits of Periodic Health Examinations have been reviewed in original articles in several of the state journals and repeatedly emphasized by President Harvard in his addresses to the medical profession of Georgia. It is generally recognized in these articles that the value of the examinations depends upon the ability of the doctor to educate his patients as well as his ability to recognize incipient pathology. It is pointed out that there is apparently increasing interest on the part of the public in matters of public and personal hygiene, and that much of the progress in life extension has been made by community observance of sanitary laws and regulations.

The public demand for more individual attention has been capitalized by organizations whose interest it is to guard their client's health. It is common knowledge that periodic examinations of the apparently healthy indi-

viduals frequently disclose errors of living and habits, the correction of which may postpone a fatal outcome. It is the consensus of opinion that the examiner who is interested in the subject will not be content to make simply a diagnostic physical examination but will investigate such matters as hours of work, exercise, food, and economic problems that influence the well being of his patient.

That many more or less major defects may be found in the course of such examinations has been repeatedly proven. One examiner in the course of one hundred examinations noted that 27% of his patients were more than 15 pounds underweight, 3% suffered from chronic otitis media, and 19% had defective hearing and 10% presented various chest abnormalities.

The preparation of the general practitioner for making health examinations will open a widening field in medical education by emphasizing the importance of early signs and symptoms of disease and prophylactic methods of control. One observer remarks that "the medical profession should thoroughly understand that periodic examinations throw upon them a new and very difficult problem," that of recognizing an entirely different pathology from the full blown evidence of disease.

Periodic examinations will, without doubt, improve the diagnostic ability of the examiner and stimulate him to increased interest in recording his observations. It should likewise make the profession a greater asset to his community and gain for it an even greater share of public confidence than it at present enjoys. From the carefully kept records and data thus obtained, new etiologic factors may be discovered and new advances made in the field of preventive medicine.

SPIROCHETAL BRONCHITIS

Report of a case successfully treated with Arsphenamine.

John W. Fisher, Twin Falls, Idaho

Jour. Lab. and Clin. Med. October 1926, 5 pages 55-57.

Fisher reports a case, (married female, 38) of purulent bronchitis due to Vincent's spirochete and to the fusiform bacillus, which resulted in prompt recovery by intravenous administration of neoarsphenamine. A subsequent intramuscular injection of sulpharsphenamine was given to guard against the recurrence of the pulmonary infection.

THE CRAWFORD W. LONG PRIZE CONTEST

The Crawford W. Long Prize is donated for original work, with the purpose of encouraging such endeavor by the physicians in the country as well as by his confreres in the city. We wish to impress the fact that all physicians who may compete will have the same consideration, and the committee welcomes essays from all sections of the State. This prize, through the interest of a generous donor, will be presented yearly if sufficient interest be manifested.

- (1) The essayist must be a member in good standing in the Medical Association of Georgia.
- (2) The essay must be presented at the regular annual convention of the Medical Association of Georgia, by the essayist himself and at the time appointed by the program committee. Otherwise it will be disqualified.
- (3) The essayist must specifically state that he is a contestant for the Crawford W. Long Prize for original work and must indicate specifically in his essay what he claims to be original.
- (4) The essays and essayists are subject to the rules and customs observed by the program committee, especially as to notifying the committee of your title and intention to read a paper by expiration date fixed by them, and as to the time limit allowed in presenting paper. It is also understood that the essay will be published in the Journal of the Medical Association of Georgia. However, the committee will agree that it may be published elsewhere with minor changes.
- (5) The essays must show original work.
- (6) Essays must be of sufficient merit. Decision rests with the committee. If there be no essay of sufficient merit, the prize will not be presented.
- (7) After the essayist reads his essay, the original manuscript will be presented to the chairman of the committee and a copy given to the Secretary of the Association.
- (8) The decision of the committee will be reached after careful study and due con-

sideration of the manuscripts of the several essays. This decision will be published in the Journal of the Medical Association of Georgia, at the discretion of the committee.

- (9) The decisions rendered by the committee are final.

THE COMMITTEE,
Wm. R. Dancy, Chm.

KAHN PRECIPITATION TEST FOR SYPHILIS

The evidence collected by J. G. Hopkins and Walter M. Brunet, New York (*Journal A. M. A.*, Jan. 29, 1927), by means of a questionnaire brings out the following points: 1. The present technic of the Kahn test is superior to the earlier technic. 2. The results obtained by the Kahn test (present technic) correspond to those of the Wassermann test, in a large majority of cases. Either test is negative in isolated cases of syphilis and positive in instances in which the serum reaction is the only evidence of syphilis. 3. A small number of Wassermann positive serums give negative Kahn reactions. 4. A slightly larger number of Wassermann negative serums give positive Kahn reactions. 5. The Kahn test is somewhat more sensitive than the Wassermann in primary syphilis and more persistently positive in many treated cases. 6. The main disadvantage of the Kahn test is its failure in a few cases showing a definitely positive Wassermann reaction. 7. The main advantages of the Kahn test are comparative simplicity of procedure, rapidity of obtaining results, its usefulness with anticomplementary serums, and the fact that it reveals a reaction in some cases in which the Wassermann reaction is negative or doubtful.

THE DETERMINATION OF BASAL METABOLISM

W. STEINER

Schweiz. med. Woch. Vol. 55, No. 53, p. 1202

The author relates clinical experience with basal metabolic readings by means of Krogh's outfit. He administered daily doses of 3 tablets Gynergen (ergotamine tartrate) in several cases of Graves' disease. After four weeks' treatment not only was the basal metabolism reduced, but also all other clinical symptoms of Graves' disease.

Medical Association of Georgia

Seventy-Eighth Annual Session

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May 11, 12, 13, 1927

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FRATERNAL DELEGATES TO OTHER STATE MEETINGS

To Visit Florida	
C. H. Watt	Thomasville
R. F. Wheat	Bainbridge
To Visit North Carolina	
J. H. Downey	Gainesville
C. L. Ayers	Toccoa
To Visit South Carolina	
W. A. Mulherin	Augusta
H. M. Fullilove	Athens
To Visit Alabama	
E. C. McCurdy	Shellman
F. M. Martin	Shellman
To Visit Tennessee	
Trammell Starr	Dalton
C. J. Wellborn	Gainesville

ANNOUNCEMENTS

Meetings will be held in the *Colonial Theater*. Be sure to go to the Registration Desk, present your 1927 card and procure a badge immediately on your arrival.

Discussion of papers is open to all members and guests of the Association. It is not limited to those named on the program.

On arising to discuss a paper the speaker will please announce his name and address clearly for the benefit of the Association and stenographer.

Meetings will be called to order at the hour fixed on the program. It is especially desired that the members be prompt in their attendance.

All manuscript should be typewritten, double spaced and on one side of the paper only. Papers must be handed to the Secretary immediately after being read.

IMPORTANT NOTICE!

Delegates must present written credentials to the Committee on Credentials from the House of Delegates to secure Delegates Badges.

Members may not take part in the proceedings until they have registered and procured official badges.

PUBLIC MEETINGS

WEDNESDAY, MAY 11, 10:00 A.M.

PRESIDENT'S ADDRESS

The President's address will be at an open session to which the public and visitors are invited.

THURSDAY, MAY 12, 8:30 P.M.

Public Meeting, Colonial Theater. Address by Dr. E. A. Hines, Seneca, S. C.

"Periodic Examinations of Apparently Healthy Persons."

ENTERTAINMENTS

WEDNESDAY, MAY 11, 5:30-7:30 P.M.

RECEPTION

Mrs. Francis Long Taylor and Miss Emma Long, Residence 357 S. Milledge Avenue, Wednesday, May 11, 1927, 5:30 to 7:30 P.M.

THURSDAY, MAY 12, 6:30 P.M.

BARBECUE

By Clarke County Medical Society. Place to be announced later. Your badge will constitute your admission ticket.

GOLF

Members of the Medical Association of Georgia are extended the courtesies of the Athens Country Club.

Y. M. C. A.

The Athens Y. M. C. A. extends the courtesies of the building to visiting physicians.

SPECIAL MEETINGS

MEETING OF SECRETARIES OF DISTRICT AND COUNTY SOCIETIES

Round table conference of the Secretaries of District and County Societies, Thursday, May 12, 5:30 P.M., Colonial Theater. All Secretaries of District and County Societies are expected to be present. Each one will be called upon for a report of conditions in his Society and suggestions for improvement of the organization. The President, members of the Council and all general officers of the Association will be present.

MEETING OF THE COUNCIL

The first meeting of the Council will be held in the House of Delegates' room, County Court House, Tuesday, May 10, at 5:00 P.M. Each Councilor will render a written report of conditions in each county in his District. Other meetings of the Council will be held on the call of the Chairman.

MEETINGS OF THE HOUSE OF DELEGATES

TUESDAY, MAY 10, 7:30 P.M.

County Court House

First meeting of the House of Delegates.

1. Call to order by the President.
2. Roll Call.
3. Report of officers.
4. Report of Council by the Chairman.
5. Report of Committees.
 - a. Scientific Work.
 - b. Public Policy and Legislation.
 - c. Arrangements.
 - d. Medical Defense.
 - e. Hospitals.
 - f. Necrology.
 - g. Health and Public Instruction.
 - h. Cancer Commission.
 - i. National Defense.
6. Report of Delegates to the A. M. A.
7. Unfinished business.
8. New business.

WEDNESDAY, MAY 11, 8:00 A.M.

County Court House

Second meeting of the House of Delegates.

1. Call to order by the President.
2. Reading of minutes.
3. Reports of Committees, continued.
4. Unfinished business.
5. New business.

FRIDAY, MAY 13, 8:00 A.M.

County Court House

Third meeting of the House of Delegates.

1. Call to order by the President.
2. Reading of minutes.
3. Reports of Committees, continued.
4. Unfinished business.
5. New business.

PROGRAM

The papers for each meeting must be read as scheduled on the program.

WEDNESDAY, MAY 11, 1927

Colonial Theater
10:00 A.M.

Call to order by the President, V. O. Harvard, Arabi.

INVOCATION

Rev. James C. Wilkinson.....Athens

WELCOME

Hon. Alonzo G. Dudley Mayor of Athens
 Paul L. Holliday, President, Clarke County
 Medical Society Athens

RESPONSE TO ADDRESS OF WELCOME

A. J. Mooney Statesboro

SCIENTIFIC PAPERS

1. History of Public Health Work in Georgia.
 M. E. Winchester, State Board of Health.
 To lead in discussion:
 V. H. Bassett, Savannah.
 J. W. Chambliss, Americus
2. The Newer Psychology in Its Practical Application to General Medicine.
 W. W. Young, Atlanta.
 To lead in discussion:
 Geo. L. Echols, Milledgeville.
 J. N. Brawner, Atlanta.
3. Dried Yeast Therapy in Certain Psychoses—Case Reports.
 H. D. Allen, Jr., Milledgeville.
 To lead in discussion:
 R. C. Swint, Milledgeville.
 E. Bates Block, Atlanta.
4. Popular and Professional Misconceptions Regarding Malaria.
 M. A. Fort, State Board of Health.
 To lead in discussion:
 E. E. Murphey, Augusta.
 Geo. M. Murray, Atlanta.
5. Reducing Obstetrical Mortality.
 Lewis H. Wright, Augusta.
 To lead in discussion:
 J. F. Mixson, Valdosta.
 J. C. Patterson, Cuthbert.

WEDNESDAY, MAY 11,

2:00 P.M.

6. The Physician's Responsibility to Children of the Pre-School Age.
 M. M. McCord, Rome.
 To lead in discussion:
 E. N. Gleaton, Savannah.
 W. L. Funkhouser, Atlanta.
7. Rickets—Lantern Slides.
 W. W. Anderson, Atlanta.
 To lead in discussion:
 C. H. Walker, Macon.
 Frank P. Norman, Columbus.
8. Strabismus. Its Social Aspect and Correction—Lantern Slides.
 B. H. Minchew, Waycross.
 To lead in discussion:
 F. P. Calhoun, Atlanta.
 Geo. B. Smith, Rome.
9. The Use of Banana Diet in the Treatment of Chronic Intestinal Indigestion in Children.
 Joseph Yampolsky, Atlanta.
 To lead in discussion:
 W. N. Adkins, Atlanta.
 R. C. Maddox, Rome.
10. Feeding Versus Starvation Diet in Treatment of Summer Diarrhœas.
 W. A. Mulherin, Augusta.
 To lead in discussion:
 R. L. Miller, Waynesboro.
 A. J. Mooney, Statesboro.
11. Pigments in New-Born Infants.
 M. Hines Roberts, Atlanta.
 To lead in discussion:
 A. J. Waring, Savannah.
 Thos. B. Gay, Atlanta.
12. Zinc Stearate Poisoning.
 L. H. Goldsmith, Atlanta.

To lead in discussion:
 Linton Gerdine, Athens.
 Benj. Bashinski, Macon.

WEDNESDAY, MAY 11

8:00 P. M.

13. The Radiological Interpretations of Bone Tumors.
 L. D. Parry, Thomasville.
 To lead in discussion:
 T. C. Thompson, Vidalia.
 J. L. Campbell, Atlanta.
14. Diagnosis of Syphilitic Bone Lesions: Cases from the Clinics of the Emory University School of Medicine.
 J. J. Clark, Atlanta.
 To lead in discussion:
 R. W. Richardson, Macon.
 F. G. Hodgson, Atlanta.
15. Treatment of Malignancies by Combined Methods.
 J. W. Landham, Atlanta.
 To lead in discussion:
 Robt. Drane, Savannah.
 C. C. Harrold, Macon.
16. The Necessity of Pyleograms in Urological Diagnosis—Lantern Slides.
 Wallace L. Bazemore, Macon.
 To lead in discussion:
 H. Y. Righton, Savannah.
 J. C. Keaton, Albany.
17. The Injection of Uterus and Tubes with Iodinated Oil (Lipiodol) as an Aid in Diagnosis. (Roentgenological Study of Cases—Lantern Slides.)
 Ed. H. Greene, and
 Robt. C. Pendergrass, Atlanta.
 To lead in discussion:
 E. C. Davis, Atlanta.
 C. H. Richardson, Jr., Macon.

THURSDAY, MAY 12

8:00 A.M.

18. The Etiology of Urinary Infection and Methods of Determination.
 Earl Floyd, Atlanta.
 To lead in discussion:
 W. F. Reavis, Waycross.
 W. R. Holmes, Atlanta.
19. Increasing the Usefulness of the Wassermann Test.
 Paul Eaton and
 F. L. Damren, Augusta.
 To lead in discussion:
 Lee Howard, Savannah.
 J. C. Metts, Augusta.
20. Rat-Bite Fever.
 R. S. Leadingham, Atlanta.
 To lead in discussion:
 V. P. Sydenstricker, Augusta.
 S. R. Roberts, Atlanta.
21. Role of Plasma Chloride in Lobar Pneumonia.
 J. W. Daniel, Savannah.
 To lead in discussion:
 J. E. Paullin, Atlanta.
 E. C. Thrash, Atlanta.

ADDRESS

An Epidemiological Study of Endemic Typhus (Brill's Disease) in the Southeastern United States with Special Reference to the Mode of Transmission.
 Kenneth F. Maxcy, United States Public Health Service, Washington, D. C.

THURSDAY, MAY 12

12:00 Noon

PRESIDENT'S ADDRESS

V. O. Harvard, Arabi

THURSDAY, MAY 12

2:00 P.M.

22. Surgery of the Biliary Passages. (Transplantation of Biliary Fistulous Tract in Duodenum.)
L. G. Baggett, Atlanta.
To lead in discussion:
Frank K. Boland, Atlanta.
W. A. Selman, Atlanta.
23. Chronic Duodenal Ileus.
Julian K. Quattlebaum, Savannah.
To lead in discussion:
C. Thompson, Millen.
Trammell Starr, Dalton.
24. Concerning the So-Called Irreducible Minimum in Surgical Mortality.
C. W. Roberts, Atlanta.
To lead in discussion:
R. M. Harbin, Rome.
J. T. Floyd, Atlanta.
25. The Present Status of Stomach and Duodenal Surgery as Observed in Various American and European Clinics.
Thomas Harrold, Macon.
To lead in discussion:
L. C. Fischer, Atlanta.
R. C. Franklin, Swainsboro.
26. Tetany Following Secondary Thyroidectomy—Report of Case.
Chas. E. Waits, Atlanta.
To lead in discussion:
Chas. Usher, Savannah.
A. R. Rozar, Macon.
27. Review of Recent Literature on the Injection of Hemorrhoids with Analysis of Fifty of the Author's Recent Cases.
M. C. Pruitt, Atlanta.
To lead in discussion:
R. F. Wheat, Bainbridge.
J. Cox Wall, Eastman.
28. Congenital Pyloric Stenosis in Adult Life.
Ralph H. Chaney, Augusta.
To lead in discussion:
Wm. R. Dancy, Savannah.
Geo. M. Niles, Atlanta.

THURSDAY, MAY 12

8:30 P.M.

PUBLIC MEETING
Colonial Theater

Presentation of Badge of Service to President, V. O. Harvard by T. J. McArthur, Cordele.

ADDRESS

Periodic Examinations of Apparently Healthy Persons. E. A. Hines, Seneca, S. C., Invited Guest of the Association.

MEMORIAL EXERCISES

Committee on Necrology, E. B. Davis, Chairman, Byromville.

FRIDAY, MAY 13

8:00 A.M.

29. Tonsillectomy Tissue Coagulation Technique.
Julian Buff, Atlanta.
To lead in discussion:
Hiram J. Williams, Cordele.
I. W. Irvin, Albany.
30. Syphilodermata—Lantern Slides.
Howard Hailey, Atlanta.
To lead in discussion:
H. R. Slack, LaGrange.
Jack W. Jones, Atlanta.
31. Supra-Condylar Fracture of Elbow.
Grady N. Coker, Canton.
To lead in discussion:
Henry M. Michel, Augusta.

32. Subdiaphragmatic Abscess with Suggestions for Prevention.
L. W. Grove, Atlanta.
To lead in discussion:
A. D. Little, Thomasville.
O. H. Weaver, Macon.
33. Chorio-Epithelioma—Report of an Unusual Case.
W. P. Nicolson, Jr., Atlanta.
To lead in discussion:
J. T. McCall, Rome.
E. L. Bishop, Atlanta.
34. Their Phosphatic Index.
G. Y. Moore, Cuthbert.
To lead in discussion:
J. A. Redfearn, Albany.
T. E. Rogers, Macon.
35. The Diagnosis of Brain Tumors.
Calvin Weaver, Atlanta.
To lead in discussion:
C. E. Dowman, Atlanta.
C. W. Crane, Augusta.
36. Static Deformities of the Feet.
E. J. Radcliffe, Rome.
To lead in discussion:
Theodore Toepel, Atlanta.
W. A. Newman, Macon.

ALTERNATES

1. Apoplectic and Apoplectiform Seizures—Etiology and Management.
W. A. Smith, Atlanta.
2. Intestinal Obstruction—Cause of Toxemia in and Treatment of.
Keith C. Rice, Atlanta.
3. Otomycosis.
A. G. Fort, Atlanta.

ELECTION OF OFFICERS

President.
First Vice-President.
Second Vice-President.
Delegate to A. M. A.
Councillors for the First, Second, Third and Fourth Districts.
Selection of Meeting Place for 1928.

MISCELLANEOUS

CONSTITUTION AND BY-LAWS

Section 1. No address or paper before the Association shall occupy more than fifteen minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any one subject, except by unanimous consent.

Section 2. All papers read before the Association, or any of the sections, shall become its property. Each paper shall be deposited with the Secretary when read.

Section 3. The deliberations of this Association shall be governed by parliamentary usage as contained in Roberts' Rules of Order, when not in conflict with its Constitution and By-Laws.

No miscellaneous or business matters will be discussed before the scientific session, but will be referred to the House of Delegates.

RESOLUTION ADOPTED 1921

Resolved, That a member who sends in a title of a paper to be placed on the program and is not present to read the paper shall pay the penalty of not having an opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work.

W. H. MYERS, Chairman.
W. A. MILLER.
A. H. BUNCE.
Committee on Scientific Work.

OFFICIAL CALL

To the Officers, Fellows and Members of the American Medical Association:

The seventy-eighth annual session of the American Medical Association will be held in Washington, District of Columbia, from Monday, May 16 to Friday, May 20, 1927.

The House of Delegates will convene on Monday, May 16.

The Scientific Assembly of the Association will open with the General Meeting held on Tuesday, May 17, at 8:30 P.M.

The various sections of the Scientific Assembly will meet Wednesday, May 18, at 9:00 A.M. and 2:00 P.M. and subsequently according to their respective programs.

WENDELL C. PHILLIPS,

President.

FREDERICK C. WARNSHUIS,

Speaker, House of Delegates.

Attest:

Olin West, Secretary,

Chicago, Illinois,

March 17, 1927.

SCIENTIFIC ASSEMBLY

The General Meeting which constitutes the opening exercises of the Scientific Assembly of the Association, will be held Tuesday evening, May 17, 1927, at 8:30. The Sections will meet on Wednesday, Thursday and Friday, May 18, 19 and 20, 1927.

CONVENING AT 9:00 A.M. THE SECTIONS ON
Practice of Medicine.

Obstetrics, Gynecology and Abdominal
Surgery.

Laryngology, Otolaryngology and Rhinology.

Pathology and Physiology.

Urology.

Orthopedic Surgery.

Preventive and Industrial Medicine and
Public Health.

CONVENING AT 2:00 P.M. THE SECTIONS ON
Surgery, General and Abdominal.

Ophthalmology.

Diseases of Children.

Pharmacology and Therapeutics.

Nervous and Mental Diseases.

Dermatology and Syphilology.

Gastro-Enterology and Proctology.

Radiology.

REGISTRATION DEPARTMENT

The Registration Department will be open from 8:30 A.M. until 5:30 P.M. on Monday, Tuesday, Wednesday and Thursday, May 16, 17, 18 and 19, and from 8:30 A.M. to 12:00 noon on Friday, May 20, 1927.

PROGRAM OF THE RAILWAY SURGEONS
ASSOCIATION OF GEORGIA

The Ninth Annual Session of the Railway Surgeons Association of Georgia will be held in the Convention Hall of Hohman Hotel, Athens, Ga., May 10, 1927, 3:00 P.M.

At 3:00 P.M. meeting will be called to order by the President, Dr. H. M. Fullilove, Athens, Ga.

Invocation by Rev. S. R. Grubb.

Address of Welcome in behalf of the City of Athens, Col. Abit Nix.

Response to Address of Welcome, Dr. J. M. Poer, West Point, Ga.

President's Address, Dr. H. M. Fullilove, Athens, Ga.

Symposium on "Foreign Transportation," discussion led by Dr. J. G. Dean, Dawson, Ga., and Dr. Thos. H. Hancock, Atlanta, Ga.

Symposium on "Physical Examination of Railway Employees," discussion led by Chief Surgeon Hugh N. Page, Augusta, Ga., and Dr. A. F. White, Flovilla, Ga.

Symposium on "Surgical Department as an Independent Head, under Legal Department, or under Operating Department," discussion led by Dr. Frank L. Eskridge, Atlanta, Ga., and Chief Surgeon C. H. Richardson, Macon, Ga.

Symposium on "Railway Malingerers," discussion led by Dr. Cleveland Thompson, Millen, Ga., and Dr. A. R. Rozar, Macon, Ga.

Addresses by visiting Chief Surgeons.

Report of interesting cases.

Report of Delegates to A. R. A.

Report of Secretary and Treasurer.

Report of Committees.

Unfinished business.

New business.

Election of Officers.

The Program Committee eliminated all scientific papers, and arranged program for Symposiums on vital railroad questions. Study these questions, attend the meeting and take part in discussions. If you fail to do this you have no right to be complaining.

Yours very truly,

J. W. PALMER,
Secretary.

District and County Societies

District Editors

1. Long, W. V., Savannah.
2. Watt, C. H., Thomasville.
3. Greer, Chas. A., Oglethorpe.
4. Peniston, Joe B., Newnan.
5. Pitts, Jno. B., Atlanta.
6. Thompson, O. R., Macon.

7. McCord, M. M., Rome.
8. Carter, D. M., Madison.
9. Bennett, J. C., Jefferson.
10. Lee, F., Lansing, Augusta.
11. W. F. Reavis, Waycross.
12. Cheek, O. H., Dublin.

1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.
2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926.
3. Dougherty County, Dr. I. M. Lucas, Albany, Dec. 15, 1926.
4. Chattooga County, Dr. W. B. Hair, Summerville, Dec. 16, 1926.
5. Macon County, Dr. F. M. Mullino, Montezuma, Dec. 30, 1926.
6. Lamar County, Dr. Jno. M. Anderson, Barnesville, January 6, 1927.
7. Pike County, Dr. M. M. Head, Zebulon, January 25, 1927.
8. Rabun County, Dr. J. A. Green, Clayton, January 27, 1927.
9. Murray County, Dr. E. H. Dickie, Chatsworth, January 27, 1927.
10. Taylor County, Dr. J. C. Hind, Reynolds, January 29, 1927.
11. Jasper County, Dr. E. M. Lancaster, Shady Dale, February 9, 1927.
12. Terrell County, Dr. Logan Thomas, Dawson, February 24, 1927.
13. Butts County, Dr. J. Lee Byron, Jackson, March 30, 1927.
14. Franklin County, Dr. Stewart D. Brown, Royston, April 11, 1927.
15. Ware County, Dr. K. McCullough, Waycross, April 12, 1927.
16. Wayne County, Dr. M. N. Stow, Jesup, April 12, 1927.
17. Stephens County, Dr. C. L. Ayers, Tooea, April 18, 1927.

FIRST DISTRICT MEDICAL ASSOCIATION

The Mid-Winter Meeting of the First District was held at Statesboro, Thursday, March 10, 1927.

Meeting called to order by President, Dr. Wm. R. Dancy of Savannah.

Invocation by Rev. J. E. Parker, Statesboro.

Address of Welcome by Dr. A. J. Mooney, Statesboro.

Response by Dr. W. R. Dancy, Savannah.

Minutes of meeting held, July 8, 1926, read and adopted.

The Scientific Program was as follows:

1. Pellagra by Dr. R. L. Miller, Waynesboro; discussed by Drs. C. Thompson, J. W. Daniel, Ralston Lattimore and W. R. Dancy.

2. Public Health Measures by Dr. W. W. Evans, Halcynondale; discussed by J. W. Daniel, Savannah; A. J. Mooney, Ralston Lattimore, C. Thompson and W. R. Dancy.

3. Anesthesia by Dr. W. M. Bryan, Commanding Officer, U. S. Marine Hospital, Savannah; discussed by Drs. R. L. Cone, J. L. Elliott, H. Y. Righton, H. T. Exley, W. V. Long, W. A. Cole, Chas. Usher, J. W. Daniel, Claxton; E. J. Whalen, Wm. Shearouse.

4. Three Clinical Cases by Dr. Ralston Lattimore, Savannah; discussed by Drs. C. Thompson, and J. W. Daniel, Savannah.

5. Our Present Knowledge of the Gall-Bladder by Dr. Chas. Usher, Savannah.

6. Functions of Liver and Gall-Bladder in the Light of Recent Experimental Research by Dr. T. P. Waring, Savannah; papers of Drs. Usher and Waring were discussed together by Drs. J. W. Daniel, Savannah, J. K. Quattlebaum, W. A. Cole and W. R. Dancy.

7. Report of Case of Cancer of the Transverse Colon with Operation by Dr. Cleveland Thompson, Millen; discussed by Drs. M. J. Egan, A. J. Mooney.

8. Stricture of Ureter by Wm. Shearouse, Savannah; discussed by Drs. W. E. Floyd, H. Y. Righton, H. T. Exley, T. P. Waring, W. A. Cole, R. L. Miller, W. M. Bryan and J. K. Quattlebaum.

9. The Value of Understanding Pathological Physiology by Dr. J. W. Daniel, Savannah; discussed by Dr. E. J. Whalen.

10. The Premature Infant in the Home by Dr. A. J. Waring, Savannah; discussed by L. F. Lanier, J. W. Daniel, Claxton; C. Thompson and R. L. Miller.

The paper by Dr. A. J. Mooney, Statesboro, on "Breast Tumors" was held over until the summer meeting at the suggestion of the essayist.

The Woman's Auxiliary to the Bulloch-Candler Counties Medical Society served a delightful barbeque.

On motion of Dr. T. P. Waring, the Association unanimously gave a vote of thanks to the local

society and the Woman's Auxiliary for their generous hospitality and entertainment.

The invitation of Savannah and Chatham County by Dr. R. V. Harris to the Association to hold its summer meeting in Savannah. ?

The invitation by Dr. R. V. Harris to hold the summer meeting in Savannah was accepted.

Adjourned.

Respectfully submitted,

W. V. LONG,

Secretary.

Savannah.

SEVENTH DISTRICT MEDICAL SOCIETY

Rome, Ga., April 6, 1927.

The Seventh District Medical Society of Georgia met in Rome on Wednesday, April 6, 1927, at 10 A.M., Dr. W. E. Benson, President and Dr. M. M. McCord, Secretary.

The sessions were held at the Coosa Country Club House and a barbecue was served the guests by the Floyd County Medical Society at 1 P.M.

After invocation by Rev. H. F. Joyner, the secretary read the minutes of the Cartersville meeting and the same were adopted.

Dr. J. P. Bowdoin made a very interesting report of public health activities in the state, and called attention to needed legislation and additional appropriations to be asked of the general assembly in June to carry on the work of the tuberculosis sanatorium at Alto, the home for mental defectives at Augusta and an enlarged program for the state board of health. Dr. Bowdoin reported that there are 500 mentally defective children on the waiting list, yet the home has its full capacity of 60 and cannot take any more without an increase in the appropriation.

The scientific papers were next taken up as follows:

1. Mental Hygiene as Applied to Infants and Children, W. L. Funkhouser, Atlanta.

2. Rheumatism in Children, G. L. Faucet, Gadsden, Ala.

3. Diarrhœas in Infants, W. M. Salter, Anniston, Ala.

The three papers were discussed by Drs. Maddox, McCord and Bowdoin.

4. Surgical Conditions of the Parotid Gland, J. O. Morgan, Gadsden, Ala. Discussed by R. M. Harbin, Rome.

5. Digitalis, H. L. Erwin, Dalton. Discussed by Drs. W. J. Shaw, J. W. Clements and Jas. A. McGarity.

6. Advance in Medicine and Surgery and Increase in the Doctor's Responsibility, J. H. Hammond, LaFayette.

7. Appendicitis, W. P. Harbin, Rome. Discussed by Drs. Trammell Starr, J. T. McCall, J. W. Clements, R. M. Harbin and H. L. Erwin.

8. Report of Serum-Therapy in an Epidemic of Scarlet Fever, B. V. Elmore, Rome. Discussed by M. M. McCord.

9. Focal Infection, H. J. Ault, Dalton.

The election of officers showed the following results:

For President, W. E. Wofford, Cartersville.

For Vice-President, R. M. Harbin, Rome.

For Secretary-Treasurer, M. M. McCord, Rome.

Walker and Whitfield Counties each extended invitations for the September meeting. Dr. J. H. Hammond invited the society to LaFayette while Drs. H. J. Ault and Trammell Starr invited the convention to Dalton. The invitation was accepted to meet in Dalton the last Wednesday in September as the guests of Whitfield County Medical Society.

Dr. Trammell Starr offered a resolution of thanks to the Floyd County Medical Society for the hospitality manifested during the day, and the same was adopted by a rising vote.

There being no further business the society adjourned to meet in Dalton at 10 A.M., September 28th.

M. M. McCORD,
Secretary.

COUNTIES REPORTING FOR 1927

WALTON COUNTY MEDICAL SOCIETY

Walton County Medical Society announces the following officers for 1927:

President—H. L. Upshaw, Social Circle.

Vice-President—J. B. H. Day, Social Circle.

Secretary-Treasurer—J. K. McClintic, Monroe.

MADISON COUNTY MEDICAL SOCIETY

Madison County Medical Society announces the following officers for 1927:

President—H. G. Banister, Ila.

Secretary-Treasurer—W. D. Gholston, Danielsville.

Delegate—H. G. Banister, Ila.

Alternate—G. L. Loden, Colbert.

Board of Censors—G. L. Loden and R. J. Westbrook.

LAURENS COUNTY MEDICAL SOCIETY

Laurens County Medical Society announces the following officers for 1927:

President—Sidney Walker, Dublin.

Vice-President—A. T. Coleman, Dublin.

Secretary-Treasurer—O. H. Cheek, Dublin.

Delegate—J. E. New, Dexter.

Board of Censors—W. C. Thompson, E. B. Claxton and R. J. Chappell.

BEN HILL COUNTY MEDICAL SOCIETY

Ben Hill County Medical Society announces the following officers for 1927:

President—Chas. Wilcox, Fitzgerald.

Vice-President—W. D. Dorminy, Fitzgerald.

Secretary-Treasurer—L. S. Osborne, Fitzgerald.

Delegate—E. A. Russell, Fitzgerald.
 Alternate—R. M. Ware, Fitzgerald.
 Board of Censors—J. L. Frazer and D. B. Ware.

SCREVEN COUNTY MEDICAL SOCIETY

Screven County Medical Society announces the following officers for 1927:

President—H. E. Ezell, Oliver.
 Vice-President—L. F. Lanier, Rocky Ford.
 Secretary-Treasurer—E. E. Downing, Newington.

DOOLY COUNTY MEDICAL SOCIETY

Dooly County Medical Society announces the following officers for 1927:

President—T. F. Bivins, Vienna.
 Vice-President—W. N. Edenfield, Vienna.
 Secretary-Treasurer—F. E. Williams, Vienna.
 Delegate—V. C. Daves, Vienna.
 Alternate—H. H. Shipp, Vienna.

ELBERT COUNTY MEDICAL SOCIETY

Elbert County Medical Society announces the following officers for 1927:

President—G. A. Ward, Elberton.
 Vice-President—J. E. Johnson, Elberton.
 Secretary-Treasurer—B. B. Mattox, Elberton.
 Delegate—D. V. Bailey, Elberton.
 Alternate—A. S. Johnson, Elberton.
 Board of Censors—A. C. Smith, O. B. Walker and F. L. Adams.

WHEELER COUNTY MEDICAL SOCIETY

Wheeler County Medical Society announces the following officers for 1927:

President—D. C. Colson, Glenwood.
 Secretary-Treasurer—W. A. Rivers, Glenwood.

TATTNAIL COUNTY MEDICAL SOCIETY

Tattnail County Medical Society announces the following officers for 1927:

President—J. H. Bowen, Cobbtown.
 Vice-President—R. D. Jones, Elza.
 Secretary-Treasurer—J. C. Collins, Collins.
 Delegate—J. M. Hughes, Glennville.
 Board of Censors—L. V. Strickland, C. B. Walling and G. W. Tootle.

JONES COUNTY MEDICAL SOCIETY

Jones County Medical Society announces the following officers for 1927:

President—J. W. Anderson, Gray.
 Secretary-Treasurer—J. O. Zachery, Gray.
 Delegate—J. O. Zachery, Gray.

SPALDING COUNTY MEDICAL SOCIETY

Spalding County Medical Society announces the following officers for 1927:

President—W. C. Miles, Griffin.
 Secretary-Treasurer—T. I. Hawkins, Griffin.
 Delegate—A. H. Frye, Griffin.
 Censor—C. L. Rucker, Griffin.

FRANKLIN COUNTY MEDICAL SOCIETY—100%

Franklin County Medical Society announces the following officers for 1927:

President—S. D. Brown, Royston.
 Vice-President—E. T. Pool, Lavonia.
 Secretary-Treasurer—B. T. Smith, Carnesville.

CAMPBELL COUNTY MEDICAL SOCIETY

Campbell County Medical Society announces the following officers for 1927:

President—T. P. Bullard, Palmetto.
 Secretary-Treasurer—A. J. Green, Union City.

MENACE OF THE SLIGHTLY POSITIVE WASSERMANN REACTION

JAMES HERBERT MITCHELL

The Journal of the American Medical Association,
 October 23, 1926, p. 1351

Syphilophobia is increasing at an alarming rate in this country due largely to articles published in magazines and newspapers relating the consequences of syphilis, the ease of acquiring it and its incurability. Physicians are unwittingly contributing to the tendency in small measure by placing too much confidence in slightly positive Wassermann reactions. The author emphasizes the fact that the reaction is not infallible; that at best it is only a symptom and that in case of doubt, further specimens of blood should be submitted for examination. Medical students should have impressed on their minds that physical examination is just as important as ever and that serology cannot be substituted for it.

SYPHILITIC AORTITIS

F. MORITZ

Munch. med. Woch. July 30, 1926, p. 1263

The author finds subjective symptoms comparatively rare in a beginning aortitis. Accentuation of the second aortic sound without corresponding increase in blood pressure—and frequently with a systolic murmur—is an important sign. Differences between the pulse of the two carotids or the two radial arteries, pulsation in the jugular fossa and roentgen examination confirm the diagnosis. The Wassermann test was negative in about one-eighth of the patients. On the other hand, syphilitic aortitis was found in one-half of the men and one-third of the women with positive Wassermann reaction. An energetic specific treatment with Salvarsan, bismuth, iodides and mercury continued for years gives good results.

Woman's Auxiliary Medical Association of Georgia

OFFICERS

President.....Mrs. C. W. Roberts, Atlanta
Vice-President.....Mrs. W. L. Davis, Albany
Parliamentarian.....Mrs. Allen H. Bunce, Atlanta
Secretary-Treasurer, Mrs. Marion T. Benson, Atlanta
Honorary President, Mrs. James N. Brawner, Atlanta

District Managers

1st District.....Mrs. Gordon L. Groover, Savannah	7th District.....Mrs. P. O. Chaudron, Cedartown
2nd District.....Mrs. Gordon Chason, Bainbridge	8th District.....Mrs. Paul Holliday, Athens
3rd District.....Mrs. R. H. Pate, Unadilla	9th District.....Mrs. J. H. Downey, Gainesville
4th District.....Mrs. R. S. O'Neal, LaGrange	10th District.....Mrs. W. W. Battey, Sr., Augusta
5th District.....Mrs. Marlon C. Pruitt, Atlanta	11th District.....Mrs. B. H. Minchew, Waycross
6th District.....Mrs. C. H. Richardson, Jr., Macon	12th District.....Mrs. T. C. Thompson, Vidalla

COMMITTEES

COMMITTEE ON PROGRAM AND ENTERTAINMENT

Mrs. H. M. Fullilove, Chairman.....Athens
Mrs. Paul Holliday.....Athens
Mrs. W. H. Cabaniss.....Athens
Mrs. R. M. Goss.....Athens

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Mrs. J. Cox Wall, Chairman.....Eastman
Mrs. Chas. C. Hinton.....Macon
Mrs. B. H. Minchew.....Waycross

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Mrs. O. H. Matthews, Chairman.....Atlanta
Mrs. T. F. Abercrombie.....Atlanta
Mrs. J. W. Daniel.....Savannah

FINANCE COMMITTEE

Mrs. Nichols Peterson, Chairman.....Tifton
Mrs. A. H. Black.....Thomaston
Mrs. A. S. M. Coleman.....Douglas

COMMITTEE ON ORGANIZATION

Mrs. L. F. Lanier, Chairman.....Rocky Ford

Dear Friends Over Our State—

The Woman's Auxiliary of Clarke County Medical Society cordially invites the wives of all doctors and their widows to attend the third annual meeting of the Woman's Auxiliary to the Medical Association of Georgia.

We are looking forward to seeing you personally and want this to be the largest and most successful meeting in our history. We will do all in our power to make it an occasion to be remembered.

A series of entertainments have been planned to keep you busy most of the time, leaving your husband free to attend the scientific sessions of the Association. Hoping to have you with us May 10, 11, 12, 13.

Very sincerely yours,

MRS. PAUL HOLLIDAY, President,

Woman's Auxiliary, Clarke County.

March 4, 1927.

Athens, Georgia.

PROGRAM

Third annual Meeting of Woman's Auxiliary to the Medical Association of Georgia.

TUESDAY-REGISTRATION

Georgian Hotel Headquarters—May 10-13th inclusive.

Wednesday May 11, 1927—Mell Auditorium.

11:00 A. M.

Meeting of Executive Board with Delegates.

1:00 P. M.

Luncheon—Woman's Club. Mrs. S. V. Sanford and Committee on Arrangements in charge.

Special Guests Mrs. Fannie Long Taylor and Miss. Emma Long, daughters of Dr. Crawford Long.

5:00 P. M.

Open Air Health Festival. Given by Child Health Demonstration. Agricultural College.

8:00 P. M.

Normal School Play.

PROGRAM—GENERAL MEETING THURSDAY

10:30 A. M.

Mell Auditorium

Invocation by Dr. W. P. King.

Roll Call of Officers. Introduction of Honor Guests.

Address of Welcome by Mr. L. G. Dudley, Mayor, City of Athens.

Address of Welcome by Chancellor Snelling, University of Georgia.

Address of Welcome by Mr. M. G. Michael, from the City at large.

Address of Welcome by Mrs. Paul Holliday, President Clarke County Woman's Auxiliary.

Response to Addresses of Welcome—Mrs. Chas. C. Hinton, President Woman's Auxiliary, Bibb Co. Medical Society.

Minutes of last annual meeting.

Address, Gov.-Elect Dr. L. G. Hardman.

Report of Officers.

Report of Committees.

Election of Officers.

COMMUNICATIONS

To the Members of the Fulton County Medical Society:

Must We Send Our Doctors to the Alms House? That is the title of an article in March Scribners. Every member of the Fulton County Medical Society should read it.

The public must be told more about doctors. They do not realize that such a large percentage of physicians are struggling to keep ahead of their debts, and at the same time giving one-fourth to one-half of their time to people for nothing. Even if the doctor deserves nothing better than that his wife and children do, and the city and state would be better for having citizens who were reasonably recompensed for their services. Does the plumber or his helper work for you for nothing? He does not! nor does any one else that you can think of. YOU give your services to the poor, to the city, and the state with liberality.

But from what I have been told you are being imposed on by working in the charity clinics for patients who are able to pay for medical service, and in certain instances out of town cases have been treated under the misrepresentation that they resided in Atlanta. Those of you who are residents of Fulton County are paying taxes for the support of the charity clinics, many are giving their services to the clinics, and are there treating patients who are able to pay their way, but are misrepresenting themselves as charity cases.

I am writing this letter to urge the members of the Fulton County Medical Society to unite in having the Society appoint some kind of credit man who can investigate the financial condition of the patients who are now visiting the charity and semi-pay clinics of this city. In connection with the investigation it would be an easy matter to arrange for some newspaper publicity for the reason that by eliminating unsuitable cases from the City Clinics Atlanta's bills would be reduced. The results of the investigation will make interesting news for the public.

Let us see for ourselves whether these rumors are true. An investigation is, I feel, worth while and I will contribute five dollars a month to the Fulton County Medical Society for a year to be used for that purpose.

Fraternally,

MONTAGUE L. BOYD, M.D.

Atlanta, April 7, 1927.

PROTEIN SENSITIZATION

At the beginning of the twentieth century practically nothing was known about protein sensitization, as such, though the phenomenon itself had been frequently observed. Its most common manifestation not only before that time, but since, has been in the form of so-called hay-fever or pollinosis; but this disturbance is only a type of a constitutional anomaly of a much wider scope, covering, for example, a great variety of food substances, irritating dusts, and animal emanations.

The symptoms of protein sensitization are not specifically indicative of the etiology. Any number of proteins may produce identical symptoms. It becomes necessary, therefore, in any case of hay fever, asthma, urticaria, eczema, gastric disorder or intestinal colic that is not otherwise explicable, to test the patient's susceptibility to one or more of the proteins to which he is exposed.

Protein extracts for this purpose are offered by a number of manufacturers, all embodying, of course, the same principle, but differing in form. Since the tests are made by scarifying the skin and applying the extract in small quantity, as in vaccination, it would seem that the best form of protein extract for this use would be a semifluid product, rather than liquid or powder.

This thought has occurred to Parke, Davis & Co., who offer 194 diagnostic protein extracts in glycerin-boric acid paste form, for convenient application. The extracts are obtainable singly and in groups. See the advertisement in this issue entitled "Parke, Davis & Company's Diagnostic Protein Extracts."

Seventy-Eighth Annual Session
Medical Association of Georgia
ATHENS
May 10, 11, 12, 13

Georgia State Association of Graduate Nurses

OFFICERS

President.....Miss Lucy M. Hall, R.N. 522 East 40th St., Savannah, Ga.	2nd Vice-President.....Miss Mae E. Burges, R.N. 1108 East Henry St., Savannah, Ga.
1st Vice-President.....Miss Margaret E. Dorn, R.N. 1117 Telfair St., Augusta, Ga.	Secretary.....Mrs. Alma E. Albrecht, R.N. Georgia Infirmary, Savannah, Ga.
Treasurer.....Miss Jane VanDeVrede, R.N. 105 Forrest Ave., N.E., Atlanta, Ga.	

"Nursing is carrying the responsibility for adapting and co-ordinating the conditions immediately surrounding a patient so as to re-establish and protect his health." Martha Russell, R.N.

EDUCATION

"Time makes ancient good uncouth." In no phase of our modern life is this more marked than in the care of the sick. In the brief span of the ten years since the World War many improvements in equipment and increased knowledge in their use for diagnosis and treatment have become the heritage of every modern hospital.

With this advancing technique has come a corresponding change in nursing education and responsibility.

In 1917 only one school of those reporting annually to the Board required a High School Education of 4 years for entrance.

In 1927 fourteen Georgia schools reported such a requirement to the American Medical Association.

Many schools whose requirements are for two years High School education previous to entrance also have high school graduates taking the training. Recent reports show that more than six hundred of the eleven hundred and eighty-nine students in Georgia schools have high school diplomas, and all but 2½% meet the standards of two years of high school which is the standard required by the Board of Examiners. It is evidenced in schools all over the country that a reasonable entrance requirement enforced results in not only better students but more students since it is difficult to incorporate grammar school students and high school students in the same classes.

Two years of High School work or eight Carnegie Units, the minimum standard in the States seems a reasonable requirement and can easily be enforced for all schools Students

should not be accepted who have not had this amount.

By hearty co-operation with the school authorities any school may soon recruit its students from the rank of High School graduates.

With less accent on regular school branches more time can be allotted to nursing subjects.

Where only one instructor can be provided she cannot be expected to teach subjects fundamental to the High School course.

Doctors, the usual community benefactors to nursing education who are already providing overhead equipment, should not have to also assume a part of the burden of public school education.

We are tending in the right direction by enforcing reasonable entrance requirements thereby eliminating many of the casualties of the probation period, and the first months of training and decreasing the lists of young women who think they have learned the art of nursing by going into hospitals for a few months.

News of the Districts and Alumnae Associations

The First District of the Georgia State Association of Graduate Nurses held its regular monthly meeting April 4th at the Georgia Baptist Hospital Nurses Home. The regular business meeting preceded the program.

Interesting reports of the work of Headquarters and of the Ways and Means Committee included the announcement of the inclusion of courses for Nurses in Emory University Summer School and the proposed leg-

isolation amending the Nurses' Bill to provide for re-registration, compulsory registration, authority to grant credits, both time and scholastic, for college or other scientific studies, including public health nursing courses, etc. A waiver of six months to provide for nurses now practicing in the state.

The sum of \$100 was voted to augment the budget of the University for securing a trained public health Nursing Instructor.

Mrs. J. F. Hawthorne, Chairman of the Program Committee had invited the Public Health Section to take charge of the program. Miss Lillian Alexander, Chairman of the Section asked Miss Virginia Gibbs of Marietta, President of the State Branch of the N. O. P. H. N., to preside and introduce the speakers.

Dr. T. F. Abercrombie, State Health Commissioner, spoke of the need for nursing service and especially for Public Health Nurses in the rural counties. He commended the nurses for their hearty support of the proposed summer courses at Emory University.

Dr. J. P. Kennedy, Health Officer of Atlanta, spoke of the development of scientific medicine and the need to put to practical use the knowledge we have. He stated how valuable he considered the nurse in the home and school for the control of communicable diseases.

Dr. Joe Bowdoin, Director Bureau of Child Hygiene, spoke of the great need of nurses in the saving of infants and mothers. He mentioned the functions of the nurse in caring for the patient and teaching members of the family to do so. In holding classes for midwives, he said that more than 4,000 of the 6,000 midwives in Georgia had been reached with this instruction. He made a plea for special preparation for nurses in Public Health Nursing and emphasized the summer courses to be held at Emory University as a beginning toward this end in our State.

Refreshments were served by Miss Lucie Jesse, Superintendent of Nurses and the Alumnae Association.

There were ninety nurses present.

Alumnae Associations

An Alumnae Association is being organized by graduates of The McCall Hospital

(formerly Frances Berrien Hospital), Rome, Ga. The Superintendent of Nurses, Mrs. E. S. Taylor, has been very active in promoting the organization.

An Alumnae Association has been organized by the graduates of The Phoebe Putney Memorial Hospital, Albany, Ga. Miss Helen Blanchard, Superintendent of Nurses, has greatly assisted in its foundation.

Increased activity in the Alumnae Association of the Harbin Hospital has been evidenced. Mrs. Blanche Rakestraw Lively has taken an active part in interesting the nurses in building an Association that will do credit to their Alma Mater.

The Davis-Fischer Alumnae Association held its regular monthly meeting in the Nurses Home. The President being absent the Vice-President, Miss Rozzie Dumas presided. Roll was called by the Secretary, Miss Mary Bethel; 20 nurses were present. The meeting was in the interest of the Red Cross. The Local Secretary of the Red Cross Nursing Service, Miss Jean Harrell, was present and made a stirring plea for the enrollment of nurses into the service.

Dr. Frank K. Boland made an interesting talk on the work of the Red Cross in the time of war.

Miss Jane VanDeVrede told of the preparation and equipment of the Red Cross in disaster work and the nurse's part in it.

Refreshments were served at the adjournment of the meeting, Miss Caroline Sutton acting as hostess.

If each Alumnae Association could take seriously its obligations to become worthy of the traditions of the doctors and nurses who have made the institution stand for a monument of helpfulness, efficiency and ethical standards in the community many of the problems arising from poor service and lack of consideration would be solved.

Nurses to Summer School

Courses for nurses have been included in the Summer School schedule of Emory University June 14th-July 20th. They have been designed for private duty nurses who desire to improve their technique and bring their methods in line with the newer developments

in Medicine in Pediatrics, Nutrition and Obstetrics and for public health nurses who have not thus far been able to take up special training.

An experienced Public Health Nurse and leader has been engaged and a number of other contributions will make the course very attractive and worth while. Full information may be had from State Headquarters, 105 Forrest Ave., N. E., Atlanta, Ga.

Health Conference

July 14-15 there will be a special Health Conference to which doctors, health officers, nurses and all health workers are especially invited. National speakers are being sought to make this conference a great help and inspiration to all who attend. Look for full particulars in the June Journal.

The American Journal of Nursing

The American Journal of Nursing is the official journal of many states including Georgia, but the nurses of Georgia are not living up to their opportunities. Less than 27% of the members are subscribers to their Journal. It does not seem possible! This would compare very unfavorably with the percentage of doctors who take the A. M. A. Journal.

The American Journal of Nursing is a valuable addition to libraries of Schools of Nursing, hospitals, medical schools and medical societies. Doctors would find it of interest to patients who come to their offices. Why do we overlook this veritable mine of helpful information on a subject of universal interest?

Subscriptions may be sent to headquarters office, 105 Forrest Ave., N. E., Atlanta, Ga., or direct to the Journal office, 19 West Main St., Rochester, N. Y.

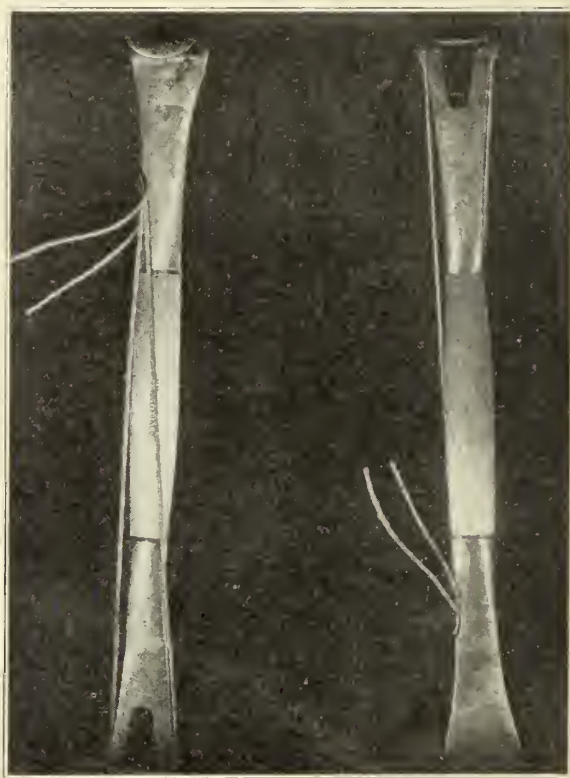
COMBINED KNOT TIER AND RETRACTOR

S. J. LEWIS, M.D.
Augusta

The instrument herewith illustrated was designed for ligating vessels in the tonsil fossæ, retracting the anterior pillars and exposing the post-nasal space in tonsil and adenoid operations.

The appliance is constructed of non-flexible metal and is $7\frac{3}{4}$ inches in length. The large curved portion of the instrument is the soft palate retractor and is for the purpose of affording a direct view of the naso-pharynx during the removal of adenoid tissue. This retractor may also be employed in other procedures, as for instance in retracting the lip in radical antrum operations, etc.

The opposite end of the instrument is somewhat V-shaped, the projecting arms being curved at their ends forming the pillar retractor. These arms are sufficiently separated to furnish wide retraction of the pillars, permitting ample inspection of the tonsil fossæ.



The outside of each arm of the pillar retractor is grooved for the reception of suture material. The spring clip on the shaft near the soft palate retractor is for the attachment of the ends of the ligature. The appliance may be threaded by the nurse, or assistant, and laid aside until called for by the operator. In this condition it is ready to be passed over the end of the forcep controlling the vessel. After this is done, the knot is made and run down, an assistant gradually releasing the vessel forcep as the knot is made secure.

The manufacturers are: Messrs. V. Mueller & Co., Chicago.

—Eye, Ear, Nose & Throat Monthly, Dec., 1926.

IMPROVED URETHRAL SYRINGE

F. A. VAN BUREN, M.D.
San Antonio, Texas

Some years ago I devised a long, slender barrel syringe (Fig. 1) for treatment of the female urethra. This instrument became very popular and was useful to those doing gynecology and urology. It may be used also as a uterine syringe.

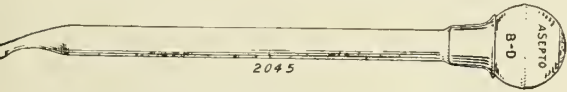


Fig. 1—Syringe with long, slender barrel

Recently I devised another model, for the female urethra and bladder only. It has a capacity of about 30 cc. of fluid, a long curved conical tip reaching the bladder, and eccentrically placed so as not to interfere with a vaginal speculum if used. Slight pressure prevents the return of the liquid (Fig. 2).

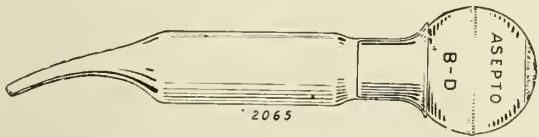


Fig. 2—Syringe for female urethra and bladder

These syringes are always in working order; they have the non-filling bulb, and are easily cleaned and sterilized. They are manufactured through the courtesy of Becton Dickinson & Co., makers of the "Asepto" line.

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NEWS ITEMS

Dr. J. P. Kennedy, Atlanta, city health officer, held baby clinics April 5, 6, 7, 8, at Adair, Grant Park, and Pryor Street schools.

Floyd County Medical Society was host to the Seventh District Medical Society at its meeting held at the Coosa Country Club near Rome on April 6.

Doctors Colvin & Ritch Sanitarium, Jesup, has been made an accredited training institution for nurses.

For information in reference to a good location for an active practicing physician, write the Secretary of the Association.

Dr. N. Overby, Sandersville, has been elected to membership in the American College of Surgeons.

Dr. W. R. King, formerly of Crawford, has removed to Tennille and opened offices in the Farmers and Merchants Bank building.

The Eleventh District Medical Society held its first semi-annual meeting for this year in Jesup on April 12. Dr. B. H. Minchew, Waycross, arranged a very interesting Scientific program. The theme of the meeting being "Public Health".

Ware county was the first in southeast Georgia to adopt the Ellis Health Law followed by Charlton, Coffee and Pierce counties.

Dr. V. H. Bassett has been appointed Health Commissioner for Chatham County. The health board has been provided with an appropriation of \$21,000.00 by the county commissioners.

Macon officials are engaged in a campaign against rabies, following an outbreak of infected dogs there recently.

The First District Medical Society held its mid-winter meeting in Statesboro, March 10, and claims the record for attendance of any district meeting in many years. The next meeting will be held in Savannah.

Dr. R. E. McClure, Quitman, Commissioner of Health for Brooks county, began a vaccination campaign against typhoid early in March. One hundred and ninety-one school children were vaccinated the first day.

The Wilkes County Medical Society entertained the physicians of Lincoln county on March 10.

Dr. B. V. Elmore, Rome, Floyd County Health Commissioner, reports the condition in the schools as being much better than last year and that 4,985 children were given physical examinations, typhoid vaccine given to 3,762, small-pox vaccine given to 4,471, Toxin-Antitoxin to 238.

Clinch county grand jury recommended that the County Commissioners employ a health officer.

The Summer Clinics of the Chicago Medical Society will be held from June 13 to July 8, 1927, at Chicago, supported by the leading hospitals. Physicians from any state may register for the entire course or for two weeks at a cost of ten dollars for each two weeks. Further information may be obtained from Dr. R. R. Ferguson, President, 25 East Washington St., Chicago.

Savannah and Chatham County have about seventy health workers, including twenty-five public health nurses, all working under one general executive department and the expenses being borne by both city and county.

Dr. Daniel L. Seckinger, Springfield, Georgia, has been elected Assistant Health Officer of the City of Savannah and Deputy Health Commissioner of Chatham County. He is on the staff of St. Mary's Hospital, Pierre, South Dakota but will assume his new duties at an early date.

Dr. B. F. Minchew, Waycross, has been appointed superintendent of the Red Cross first aid school under the direction of the local chapter.

The Walker County Medical Society held an interesting meeting at the community house at Chickamauga on March 18. Dr. J. P. Bowdoin, Director of County Health Work, attended the meeting.

Dr. D. H. Monroe, Emerson, Commissioner of Health for Bartow county, has completed plans to wage an extensive campaign against typhoid. He has visited thirty-two schools during April and administered typhoid vaccine to the school children also all others who were present and would take the preventative.

BIRTHS

Dr. and Mrs. Harry Bell Bradford, Pine Log, announce the birth of a daughter, Corra Harris, on March 21, 1927.

OBITUARY

Dr. William T. Rogers, Coleman, died at the home of his son, Dr. F. S. Rogers, March 17, 1927, after an illness of more than three years. He was born in Randolph County, March 22, 1848, and was a graduate of the University of Pennsylvania School of Medicine. Dr. Rogers spent more than fifty years practicing his profession in the vicinity of Coleman and was untiring in his efforts to relieve the suffering of all classes without a thought of financial gain. During his active practice he was a member of the Randolph County Medical Society and the Medical Association of Georgia. He had been a member of the Baptist church since youth. He is survived by four sons: Dr. F. S. Rogers, O. C. and J. J. Rogers, Coleman; Dr. F. M. Rogers, Chillicothe, Ohio; three daughters: Mrs. J. K. Newell, Birmingham, Alabama; Mrs. Hayward Bridges, Gulf Port, Miss. Funeral services were conducted by Rev. Harden, assisted by Rev. W. D. Hammock.

GLUCOSE INTRAVENOUSLY

The employment of hypertonic solutions of glucose by the intravenous route is gradually displacing the older and less dependable methods. In addition to its high caloric value as a food substance, physicians are advocating its direct administration into the circulation because of the following numerous advantages.

By this means glucose is quickly utilized by the organism; it contributes to the nutrition of the myocardium; it is non-toxic; it acts as a stimulant to the mechanism of cell metabolism; it has a marked effect in the condition of starvation characteristic of most serious diseases; it corrects the process of dehydration. In poor surgical risks where there is profound exhaustion, weakness of heart and low pressure, the danger of operation is minimized. Hypertonic solutions of glucose are being employed intravenously in the acidosis of

starvation, in the various toxemias, including the toxemia of pregnancy, in empyema, septic peritonitis, meningitis, brain abscess, typhoid, pneumonia and other serious disease processes. Successful results achieved in the treatment of resistant eczema, by this means, are attributed to the general constitutional effect of the glucose; likewise the favorable effects obtained in various glandular conditions, including hyperthyroidism and exophthalmic goiter.

Recently, investigators have directed attention to the increased value of other therapeutic substances, such as arsphenamine and optochin, when preceded or injected simultaneously with hypertonic glucose solution. This, they believe, the glucose accomplishes by increasing the permeability of the vessel endothelium or by activation of the vessels themselves.

The possibility of a reaction following these injections may be guarded against, not only by the employment of proper technic and asepsis, but most essentially by the employment of an absolutely stable solution, free from preservatives. The adulteration of glucose solutions with cresol, for this purpose, is the method adopted by some pharmaceutical corporations. At the Loeser Laboratory (formerly the New York Intravenous Laboratory) a sterile, stable solution of glucose is offered, in unadulterated form, prepared in conformity with the Loeser Method—a strict laboratory routine, presenting this remedial agent in a form that is acceptable to the blood stream. Following the usual precautions adopted at this laboratory, Loeser's Intravenous Solution of Glucose is the result of the highest type of original laboratory work.

LOCAL ANESTHESIA

The Action of Various Anesthetics Upon Uterine Contractions. M. Pierce Rucker. *Current Researches in Anesthesia & Analgesia*, Vol. V, No. 5.

All analgesics and anesthetics have more or less a tendency to quiet uterine contractions. I would rank the analgesics in the following order in this regard: Paraldehyde, magnesium sulphate, morphin, bromid and chloral. Chloral alone has scarcely any effect and hyosein usually increases the force of the contractions. The general anesthetics can be very definitely placed in the following order in reference to inhibitor action on uterine contractions: Chloroform, ether, nitrous oxid-oxygen and ethylene. Sacral anesthesia with novocain has an inhibitor or stimulating effect according to whether adrenalin is combined with it or not.

Spinal Anesthesia: A Review of More Than 6,000 Cases in the Los Angeles General Hospital: With Special Consideration of Genito-Urinary Operations. Harry W. Martin and R. Elsie Arbutnot. *Current Researches in Anesthesia and Analgesia*, Vol. V, No. 5.

THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

Volume XVI

Atlanta, Ga., June, 1927

No. 6

PRESIDENTIAL ADDRESS*

V. O. HARVARD, M.D.
Arabi

Members of the Medical Association of Georgia—

Were I to attempt to express to you the emotions I feel on this occasion, I would fail utterly in the effort. Should I try to use the few simple words at my command to express my deep sense of gratitude for the honor you so generously conferred upon me at Albany, my conscience would promptly remind me of my unworthiness to fill, in full measure, this noble and exalted place. More than that, it is even here in the classic city of Athens, which all true Georgians delight to honor, that I am filling the chair of president and am delivering to you this address, which, in the very nature of things, becomes my valedictory.

Were it not that I am surrounded by my friends, with whom I have labored all these years, and have learned to love and trust, and by whose grace I am here, I would feel scarcely able to proceed. I am aware that friendship and fellowship are regarded by some as the expression of perhaps a superficial and passing sentiment, but I rejoice that on the whole, the members of this honorable body do not belong to that class of skeptics and cynics. I am at once thankful for my friends, and grateful to them for the blessings their fellowship has brought me, and also for the obligation it levies, and duty it inspires within me that I prove myself also a friend.

To have friends, we must be one; to reap the sweet and sustaining harvest that should be the fruits of human contact, we must first

sow the seeds in our own hearts and lives; to be happy, we must contribute to the happiness of others; to expect fair treatment, we must indulge in fair dealing. Let not our fear of deception on the part of others drive us to distrust, but may we overcome it by the practice of sincerity. If we would that others be constant and true to high ideals, let us strive for that exalted elevation that will show us exhibiting faithfulness to all men, and fill with fidelity every trust.

I do not ask your pardon for these seeming preachments, for the reason that according to my mind, they are but some of the means of reaching the ideal ethical result, set forth by one of the basic purposes of this organization, viz.: "To promote friendly intercourse among physicians." A bold dogma, be it ever so sublime, loses much of its strength and beauty unless it is cultivated and applied in detail. The effort to reach a high plane of ethics cannot be inculcated en masse, but must be practiced by the individual, and while good fellowship reigns supreme upon occasions like this, and rightly so, still in the long run the fellowship and friendship that is really worthwhile, is that you exhibit in the office, in the sick room, and in the consultation. Let our creed be based on no less a principle than the Golden Rule itself, remembering those of us who need to be reminded, that with what measure ye mete, it shall be measured to you again.

In offering you this address—if by that distinguished title this effort may be designated—I shall not undertake to delve into the deep recesses of scientific research, or relate to you the splendid achievements attained along these lines by the members of this Association. But there are those here who can and will. I may not mention cases from my note book and call your attention to some discovery of mine by which disease may be more successfully combatted and a cure more

*Read before the Medical Association of Georgia, Athens, Ga., May 12, 1927.

promptly effected than heretofore. Earnest, enterprising, painstaking practitioners are here who can and will. Moreover, I shall not relate a long series of operations, the performance of which requires long training, deep study, and a skill which bears the stamp almost of genius itself, but there will be surgeons here who can and will do so. I trust that you will not regard these statements in the slightest facetious, nor prompted by an inclination to mere extravagant utterance. On the other hand, I assure you that I speak the truth as I know it about myself and my own limitations, and the truth also as I believe it concerning the preparation, the learning and the skill of members of this body, than whom with equal opportunities there are no better in all this land of ours.

What I shall bring to you are the sincere emotions from the brain of one of the humblest members of this Association and of the medical profession of this State, but who loves this organization as no other secular body of men, both because of the individuals composing it, and the possibilities by virtue of intelligent effort it may achieve. And I love it again because of the fact that I and others like me, country, small-town and every-day general practitioners feel at home in company with the bright lights of our profession, than whom none shine with more brilliant lustre, touch elbows, feeling free and equal—because of the broad, liberty-loving, democratic spirit that pervades all of our assemblies. In the past years you have heard from the able men who have served as your presiding officers, elaborate and instructive addresses, most of which dealt with the aims and purposes, or the needs and problems that have confronted us, most of which have been threshed out and disposed of in a more or less satisfactory manner. Happily for me, I come at a time when we are at our highest point of organized efficiency, and I might take as a basis for my remarks: "How our Association is carrying on."

This term coined during our great war does not carry with it so much the idea of advancement *per se*, but rather conforms to the idea of positive and patient endurance, the holding out against stubborn resistance, and espe-

cially registering a negative note against any form of retardation. Some timorous doctor is constantly doubting whether or not the Association and its subordinate organizations can hold their own, or fear that they may weaken because of indifference on the part of those not so much interested. I feel no such fears and after my visits to various counties all over our state during the last year, convince me that you need not be disturbed by any such delusions. No medical Gibbons will have the pleasant or painful duty to write in the future of the rise and fall of the Medical Association of Georgia, in our day. No, indeed. Instead of that, the medical organizations as a whole, are going to grandly sustain themselves, backed by the largest number of physicians ever before enlisted.

I feel impressed to call your attention to the enduring qualities of this Association for the reason, that after several years of gradual but sure growth under able leadership, it is but natural that we would hear expressed that soon there would be a period of relaxation that would manifest itself by a withdrawal of active interest of many of our members, coupled with a lessening of enthusiastic support. From my viewpoint, both as a member in the ranks during the past several years, and this year as president, utilizing every means at my disposal by letter or visit that I might learn first hand the truth, I give you as my honest opinion that the appreciation for our Association and the determination of the rank and file of the doctors to sustain it in its every endeavor, is clearly apparent to any one who is observant and interested.

The wisdom of those who effected our present organization is clearly reflected in the results obtained, using the county society as the unit, without membership in which no one could gain admission to the mother Association, which with the added impetus and strength of the district societies, a safe tripod is formed which will not only stand, but does stand alone. It has passed the stage of coddling, and, like a man endowed with strength and courage, needs but to be properly directed, and I feel as a citizen of this good State, that with this great number of intelligent and cultured minds striving to improve

health and living conditions for our people, the time has arrived when we should make ourselves heard and felt. I say this with utmost respect and in no sense assuming a bombastic or threatening attitude, but when we compare the appropriations of other states no wealthier than we, with the niggardly sum our lawmakers allow us for our health department, we have just cause, we believe, to raise our voice in earnest and righteous protest.

COUNTY SOCIETIES

A larger number of our counties have an active working society than at any previous period. Many of them are 100% in membership, and interest in all matters pertaining to professional advancement and public health are being handled, in most instances in a manner more business like and productive of good results. Some of the societies that have heretofore incorporated two or more counties, have separated, not because of any dissatisfaction, but because they felt convinced that they could function better alone. Most of the physicians in counties not able to support a society because of their small number, are keeping up their membership in neighboring county societies. The many advantages that accrue to the members of any of these county societies of a purely local character are so potent, and entrance to the State Association being based upon membership in the local society is so wise, that both organizations are reaping the benefits of these combined influences. The faithful, patient and efficient secretary-treasurer is still, as always, the key man in these local societies, and he is due our lasting gratitude for his unselfish devotion to a task that many of us fail to properly appreciate. I appeal to them to continue to keep the home fires burning. Also, I wish to impress again that they collect the dues as early in the year as possible, not later than April 1st, that the work of the state secretary may be facilitated, and none of the benefits of state membership be lost to them.

DISTRICT SOCIETIES

It has been my great pleasure during the past year to attend fourteen district society meetings. Not that there are that many in the State, but I met with three of them twice. One District I missed, very much to my re-

gret, but my failure to do so was entirely unavoidable. The district society, membership in which is entirely voluntary, has grown to be one of the most popular and beneficial of all our organizations, close enough to be reached by all, not large enough to be unwieldy, but still large enough in attendance to furnish good papers with interesting and instructive discussions, its meetings have come to be looked forward to with most pleasurable expectations. In this society, too, the ladies auxiliary lends much to the pleasure, entertaining and interest which their presence always inspires. Most of our districts hold their meetings semi-annually, though two still meet only once a year. I feel sure, however, that this will soon be changed, and I hope we may, in a short time have all twelve districts on the semi-annual basis. I feel, too, that more papers should come up from these district meetings to our annual gathering and suggest that a Scientific Committee composed of the secretary and two members of each district society be appointed who shall select such papers as they deem of sufficient merit to be read at the state meeting, thereby encouraging more interest in members throughout the state to bring their experiences and observations to this body. While membership in these societies is not required by the State Association, I call attention to Section 8 Chapter 3 of the by-laws, which states that: "Only members of some component county society shall be members of such district society."

MEDICAL DEFENSE

The admirable manner in which our able chairman of Committee on Medical Defense, Dr. M. A. Clark, is performing the duties of his office is highly commendable and deserves our deepest gratitude. Remember the Association does not agree to pay damages, but it does guarantee to every member who complies with its simple requirements able and efficient counsel without cost to the member whatever. *Read the back of your card.*

COUNCIL

The councilors are the most important officers of the Association. The by-laws say that "each Councilor shall be organizer and peace-maker for his district. It also says the Council shall be the board of censors of the Asso-

ciation. It shall consider all questions involving the right and standing of members, whether in relation to other members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the general meeting shall be referred to the Council without discussion. It says that the Council shall provide for and superintend the publication and distribution of all proceedings, transactions, and memoirs of the Association, and shall have authority to appoint such assistance to the editor that it deems necessary. It shall manage and conduct the Journal of the Medical Association of Georgia, which is the organ of the Association."

The Council is the finance committee of the Association, all resolutions appropriating money shall be referred to them before action is taken by the House of Delegates. You gentlemen, who are now members or who may be members of the Council, I wish that you would keep in mind the importance of the office that you hold, and try to always be present at every meeting of the Council, for it is there that you learn the condition of the state as a whole and get inspiration from the reports of the other Councilors. Section 8, Chapter 5, says: "Any member of the Council who fails to attend two regular successive sessions of the Council, or whose district does not show evidences of the performance of his duties during the year, unless he renders an acceptable excuse to the Council, his position shall be declared vacant by the president and his successor appointed by the president."

MEDICAL LEGISLATION

A careful reading of the report of the committee on Medical Legislation will convince you, both with need of amending our present law and the thorough and painstaking efforts that are being expended upon this important subject. This, like so many other things that touch politics, should receive the active personal support and individual influence that every member can in some way exert upon some member of our lawmaking bodies.

VITAL STATISTICS

It is extremely gratifying to recall the fact that while the former law on Vital Statistics failed in its purpose, its weakness has been

remedied, and that, too, by virtue of an amendment that had to be submitted to the voters of the state, who registered their interest by giving it the largest majority for its ratification voted to any amendment in a decade. I mention this to emphasize the appreciation of the public for this law. I would be glad to say that this matter of payment of fees to the recording officer was the only defect, but not so. Too many of our physicians, many of whom are members of this Association, found it too onerous to make these reports, and neglected or refused to do so. Gentlemen, let us not only as fellows, but in the spirit of brethren, lay aside our prejudice if we have harbored any, and determine to do our bit, also to encourage others to do the same thing, if we know of their indifference, lending ourselves thereby to the successful administration of this law, that is so necessary to our professional information and of vital importance to the parties directly concerned. Let us not show apathy or lack of co-operation in this matter of such serious import, the success of which depends so much upon us, since the state has done its part and the people have exhibited their interest in no uncertain tones.

PUBLIC HEALTH AND THE STATE BOARD

If there exist in our State today two bodies between which no friction should exist, but the utmost harmony should prevail, it is the physicians as a whole and the State Board of Health. True, many good men practiced medicine successfully before we ever had a Board of Health, but in this day when the many complex problems and needs of modern life and modern medicine rise to confront and confound the doctor, he finds a faithful and efficient ally which can help him as no one else can or will, in his Board of Health. Any given practitioner, or, in fact, most of us might get along without it as we did in the past, but it would add much to our labor and rob us of many of the advantages we enjoy. On the other hand, we appreciate the board in proportion to its ability to function properly and efficiently.

Too much praise cannot be given for the splendid results obtained by our present board, especially when we take into consideration the limited funds, help and equip-

ment allowed them. A perusal of the last annual report of our Health Commissioner will convince you not only the vast amount of hard work that has been done, but will open to you a vista of possibilities at once astounding and inspiring. Even from a purely selfish standpoint, the most avaricious among us should be won to the support of a full and complete health program, because of the material advantages that would flow in its wake.

Parents are awakening to a deeper sense of responsibility, teachers are being inspired, and even the children are showing that they, too, are willing to co-operate as far as they can be shown or led. Never before has the outlook been so encouraging, or the future more radiant with the hope of practical fulfillment. One thing remains, the active, strong, sincere, tactful, personal support of the physicians of Georgia. I am constrained to say this, and I trust I may not offend; but if the health program fails to reach its full fruition for good in this State we all love, and whose people are our own, it will be because of the indifference of our profession. Not that we oppose it actively, or by even passive objection, but while we agree upon, and endorse and eulogize these grand efforts in our various meetings, we go to our homes and let local efforts fall flat for lack of our support. We cannot avoid our responsibility, nor should we strive to pass it to some one else, who through lack of knowledge and familiarity with conditions, are incapable of results that our interest and efforts might bring to pass. I appeal to you, gentlemen, that you use the influence with which you are blessed as a means to show the light to members of your grand juries and legislators to the end that our counties may undertake to adopt some definite health program, and that funds may be supplied to meet the needs of our Board of Health. More than twenty counties are operating under the Ellis Health Law, while several others have reached the second jury approval and are ready to organize.

PERIODIC HEALTH EXAMINATION

Much interest has been manifested and study applied during recent years to the importance and benefit of thorough examination at regular intervals who, while not ill to the point of calling in their doctor, yet may

be unconsciously suffering from disease that has not yet manifested itself, but which might be detected in its incipency by a careful physical examination.

The address of our distinguished guest, Dr. E. A. Hines of South Carolina, will, no doubt, impress you with the vast possibilities that lie in the application of this method of seeking out disease when it can best be controlled, and will make clear some of the things that have not heretofore been fully understood by many as to the methods practiced by those who have adopted this new idea. It is the sane and sensible thing for the patient, or your client as you may term him, and at the same time affords the doctor the opportunity to do a service that is helpful and satisfying to his subject and remunerative to himself. Also, he has the added pleasure and advantage of treating or advising one who voluntarily seeks his aid, thereby securing that co-operation that is not always given him.

To me it seems more or less corralled with preventive medicine which is being approved more day by day, and which is perhaps after all the ideal consummation devoutly to be wished.

Before I conclude, I wish to express my sincere thanks to the officers of the Association for their kind treatment and the hearty co-operation and support they have given me.

Also the officers of the District and County Societies which I have been able to visit, and to every member of the Association, former friends, or stranger, whom I have met in my various itineraries. I want to assure you that but for your splendid support, your friendly encouragement, and the broad charity with which you overlooked my many deficiencies and shortcomings, the requirements of this office would have been a burden beyond my ability to carry. As it is, I shall recall the duties of the past year with their various contacts, as among the pleasantest memories of my life.

To my good friend, your efficient Secretary-Treasurer, Dr. Allen H. Bunce, I wish to express my gratitude for his many acts of kindness and help relative to my official duties. *He is a friend indeed.*

In conclusion, these, gentlemen, are some of the things upon which we can expend our

daily efforts and apply our constant thought, to the end, that our beloved Association may continue to grow in strength and usefulness, both to the medical profession and the public. These are the material methods, concrete and definite in their purpose, by which our work may be directed and through which best results for all may be reached. That they are none of them perfect goes without saying, but we have arrived at the point where we feel somewhat more secure in the foundations that have been laid, upon which from year to year we confidently expect to see amendment and improvement.

The past holds much of which we are justly proud, both in the glorious work and accomplishments of individual members of the profession in the early days of our state's history, and through organized medicine during more recent years. Names could easily be mentioned, but you are familiar with them, who, by their learning and skill, by their devotion to duty and unselfishness in their work, have blessed mankind and left records fixed for all coming years the dignity, the courage and the nobility of character that should and must mark the life of every Georgia physician. Too much cannot be said for these grand men of the past. Too much honor cannot be paid them. They deserve it all.

But, gentlemen, we are living in *our* day. This is *our* opportunity. How shall we avail ourselves of it? We cannot long survive upon the dry bones of the dead past. We cannot reap honor or even respectable recognition because of what has been accomplished by those who have gone before. They served their day and generation well, and have been called to their reward. May we look to the past only to honor the memories of those glorious men and catch inspiration that streams from the noble lives they lived.

In our professional work, let us be ever awake and alert to bring to the bedside of the sufferer the best that our thought and study can supply by keeping close in touch with every sane and helpful advancement.

Towards each other let us be willing to exhibit that kind and charitable treatment that we would like to receive, remembering that we, too, are human, and liable to errors and

mistakes. And may we never willingly or willfully lower the high standard of professional or private life, and by so doing, besmirch the fair name of a Georgia doctor.

In short, let us live as true men and physicians, conscious that we have a soul to save and a God to serve, and oft times the best evidence of rendering Him service is shown by what we do for the creatures of His hand.

I call you to join with me in reconsecrating ourselves anew to our noble profession, and individually and collectively contribute our part to its glorious advancement.

REPORT OF SCARLET FEVER IN GEORGIA SCHOOL FOR DEAF CAVE SPRING, GA.

B. V. ELMORE, M.D.

Rome

Miss P. . . . , age 21, teacher in institution, developed Scarlet Fever October 14, 1926.

Dick Test given to all officers, teachers, and pupils October 27, 1926, as follows:

Pupils	200
Officers and Teachers	31
Total	231
Positive reactions at end of 24 hours.	
Pupils	51
Officers and Teachers	4
Total	55
Susceptible to Scarlet Fever	24.2%

PUPILS CLASSED ACCORDING TO AGE AND SUSCEPTIBILITY

Age	No.	Pos.	Neg.
7	6	4	2
8	24	11	13
9	7	3	4
10	8	1	7
11	20	8	12
Ages 7 to 12			65
Positive Dick Test			27
Negative Dick Test			38
Percentage Pos. Dick Test			41.5

Age	No.	Pos.	Neg.
12	23	7	16
13	25	6	19
14	20	2	18

SCARLET FEVER REPORT FOR CAVE SPRING
October 14, 1926 to November 19, 1926
GEORGIA SCHOOL FOR DEAF

Name	Age	Highest Temp.	Suspected	Isolated	Complications	Test	Immunization Serum	Dismissed	Sequelae
Sarah Pettis	21	102 3-5	10-14	10-16	None	No	No	11-13	None
Rosalie Weiner	11	104 1-2	10-23	10-23	Nose and throat bad	No	No	11-19	None
Daisy Lee Cagle	9	102	10-25	10-25	None	No	No	11-19	None
Sybil Cook	8	102	10-25	10-25	None	No	No	11-19	None
(Taken out of line day test was made)									
Ruth Ledbetter	7	102	10-27	10-27	None	No	No	11-19	None
(Developed fever before prophylactic could be given)									
Annie Logan	8	104	10-27	10-27	None	Pos.	No	11-19	None
(Was taken sick before serum came)									
Bernice Fribee	7	105	10-27	10-28	Pneumonia	Pos.	No	11-19	None
(Was taken sick before serum came)									
Connor Dillard	11	103	10-28	10-28	None	Pos.	No	11-19	None
(Was given serum October 29, 1926)									
Geneva Huggins	11	104	11-1	11-1	Ear	Pos.	No	11-19	Bad Ear
(Was not given serum)									
Jesse Randolph	13	102	11-8	11-8	None	Pos.	No	11-19	None
(Was negative and not given immunizing serum, but given treatment)									
Lillie Whiteside	20	102	11-8	11-9	None	Neg.	Yes	11-16	Palpitation of Heart Eyes weak

15	11	0	11
16	8	3	5
Ages 12 to 17			87
Positive Dick Test			18
Negative Dick Test			69
Percentage Pos. Dick Test			20.7
Age	No.	Pos.	Neg.
17	11	0	11
18	19	4	15
19	9	0	9
20	4	1	3
21	5	1	4
Ages 17 to 22			48
Positive Dick Test			6
Negative Dick Test			42
Percentage Pos. Dick Test			12.5
Teachers and Officers	31.	Ages 21 to 69	
31 Officers and Teachers for average age of 39			
Positive Dick Test			4
Negative Dick Test			27
Percentage Pos. Dick Test			10.3

Scarlet Fever Streptococcus Anti-toxin 150,000 S. T. D. given for prophylactic passive immunization was given to all showing positive Dick Test on October 29, 1926, with the exception of one who was inadvertently overlooked.

Five cases came down with Scarlet Fever before Dick Test was made on October 27th, making a total of six cases in the institution on date of test, one being taken out of line at time. One developed fever on same day after test was given, but showed a positive Dick. Two other cases came down on October 28th, before prophylactic serum was administered. One more came down November 1st, who had the serum October 29th. On November 8th, the tenth one came down, who had shown a positive Dick, but from some cause had been overlooked. On November 9th, another came down. Lillie W., age 20, who failed to give a positive Dick on reacting. The therapeutic dose, 500,000 S. T. D. of Scarlet Fever Streptococcus Anti-toxin was administered to Lillie W., age 20, November 9th. Temperature the afternoon of November 9th, showed 102. The next morning was normal, never returned, however, during the night she showed considerable reaction, nervousness, palpitation of the heart, although temperature remained around 102. She was discharged on Novem-

ber 16th, had no desquamation, no complications.

One teacher that showed a positive Dick and was given the prophylactic dose of anti-toxin developed a severe rash within twelve hours, which lasted several days. One other teacher who had the prophylactic anti-toxin developed a rash one week later. One week later appeared to have scarlet fever.

No other cases developed among teachers or pupils. Eight weeks later all who had been given prophylactic dose anti-toxin were given the four-course active immunization. Had no reactions or complications. No other cases of Scarlet Fever to date, four months later.

SERUMS AND SERUM REACTIONS*

J. W. SIMMONS, M.D.
Brunswick

Mr. President, and members of the Ware County Medical Society: It would indeed be presumptuous for me to suppose that the author of this paper might be able to bring any original enlightenment on the rather broad subject he has chosen, but he has done that which you, in your busy round have possibly not had time recently to do—and that is, read and study the literature—especially that of the biological manufacturing houses—and observe at first hand just lately the action and reaction of one of the newest of the prophylactic and therapeutic serums—(You will note that I am using the English plural—it comes easier).

In the beginning, let me observe that the paper will be confined to serums and such combinations of serums in appreciable amounts with other substances, as to bring them under this general head by reason either of their specific use, their possible actions and possible reactions.

The study of immunity, immunization and what might be termed "natural" cure, both theoretically and practically, has given the world probably its most effective and specific remedies in the prevention, control and treatment of some of the worst disease scourges

*Read before the Ware County Medical Society, Waycross, Ga., March 2, 1927.

the human race has ever experienced, and it is safe to predict that the limit of our discoveries is not yet reached. Since the time of Pasteur, who devoted much philosophical thought to the various phenomena of immunity, and who performed in his laboratory many interesting experiments establishing a firm basis of practicality for a beautiful theory, scientific medical men, laboring with skilled bacteriologists and chemists, have met the invasion of one dread host of diseases after another and have thrown back their cohorts in dismay.

Let us consider briefly first immunity, and then we may be able to more completely understand the "why" of the use of the various serums in either, or both, prophylaxis and therapeutics. The old term "resistance," heretofore applied in a general way to every disease, takes on a new meaning, and more narrowly defined, when we call it immunity. Immunity is that state or condition of the body, including mainly, of course, its blood supply and tissue fluids, which prevents the organism from contracting contagious diseases, or, in other words, assists it in resisting infection or nullifying immediately its results.

Natural immunity is that condition existing normally in an organism, whether human or brute, which prevents that organism from contracting any one or more diseases, infectious in origin, even though exposed to the infection or contagion. Such an immunity might even cover protection from diseases caused by micro-organisms of the animal kingdom, as well as of both animal and vegetable origin. It is hardly necessary to speak of the thousands who escape various and sundry diseases by reason of this natural immunity.

Wright, in his wonderful work, went so far as to establish the so-called opsonic index in calculating the normal and natural immunity of individuals against various diseases.

Acquired immunity is gained by an attack of certain diseases in acute, sub-acute or abortive forms of the diseases which create or stimulate antibodies and the enhancement of their protective effects in the presence of a possible subsequent infection with the causative agents of the original disease. This ac-

quired immunity, in the opinion of the author, may be identical with natural immunity, just defined above, in a great many instances when an individual has repeatedly been subjected to infection insufficient to cause recognizable symptomatology or pathology, but sufficient to set in motion the delicate bio-chemical forces providing the defensive factors—such as antitoxins, hemolysins, bacteriolysins, opsonins or bacteriotropins, agglutinins and precipitins. Again, acquired immunity, and that which we shall chiefly consider, comes as a result of inoculation with some specific vaccine, virus or serum.

The two types of acquired immunity are active and passive, and are, as the terms indicate, gained and developed by the individual himself through the operation of his own bio-chemic laboratory of blood and tissue fluids, either through having had the disease, or having had some "vaccination," so-called, that sets in motion this production of an artificial immunity; or, in "passive immunity," having introduced into the organism defensive factors of extraneous manufacture, such as serums containing the elements producing immunity, such serums having been obtained by the processes of acquired active immunization in the donor of the serum.

In studying the disease-preventing or disease-arresting properties of serums and the acquired immunities they provide or stimulate the creation of, it is well to know in what various ways the various antibodies work. We all know that some infectious diseases poison with toxins, as well as irritate with the ravages of the invading hosts in the immediate field of their bacterial activity, and it is interesting to note that science has found the secrets of immunization and cure so as to provide us with a defense not only against the "bullets and bayonets," so to speak, of the invading enemies, but is able to furnish "gas masks" for protection against the widely disseminated poisons let loose by the invaders.

The general term "anti-bodies" have definite subdivisions, named according to the work they do and the manner in which they accomplish their tasks of immunization and cure of disease in which they act against anything

less than an overwhelming invasion. For toxins, there are antitoxins; for bacteria in situ, or that can be reached, there are bacteriolysins; for alteration or changes in bacteria rendering them more susceptible to phagocytosis, there are opsonins or bacteriotropins; for disarming, so to speak, or weakening the invaders, there are agglutinins and precipitins. Antigens are protein substances that cause, or hasten, the formation of antibodies. It is necessary for the purposes of this paper to only mention complements, amboceptors, and their union with the antigen—the Bordet-Gengou phenomenon, except to state that this complement fixation test, in addition to determining whether a given serum contains antibodies for a given antigen, has also been used in diagnosis of a number of bacterial infections. In practically all instances the bacteria or their toxins by acting as antigens, are the authors of their own destruction.

Koch's laws and postulates are the foundation stones of investigations of the specific etiology of infectious diseases, and the finely spun theories are gradually shaping themselves into provable facts; the weakest hypotheses are emerging from the laboratories bearing in their strong hands prophylactic and therapeutic agents of real merit.

Again for definitions and foundations, before we reach the substance of the discussion; serum is blood minus the cells and fibrin. Plasma is the liquid portion of the blood with the fibrinogen present. Plasma is used in the production of antitoxins; serum, for the preparation of antibacterial serums. Practically all serums,—except in some substitutes anticipating reactions from normal serums, when the sheep is used,—are obtained from healthy horses. "Non-specific" serums being from uninoculated animals, while the specific types are obtained from animals possessing an acquired immunity for the disease alone for which his serum is to be used for prophylaxis or therapeutics.

Diseases caused by bacteria manifesting activity producing pathology through soluble toxins capable of wide dissemination, as well as production of local lesions, are those in which specific—and sometimes, non-specific—

serums are indicated. Severe systemic reactions from infections are a second indication for the use of serums, and infections with a relatively short incubation period can often be warded off by the use of serums.

Serums are normal or immune. Their names indicate their character. They are also antitoxic and antibacterial, as we have before stated in our discussion briefly of immunology. As we tend more and more to treat infections specifically, instead of their resulting lesions and complications symptomatically, and have at hand so many agencies for diagnosis of the particular kinds and types of infections, we will incline more completely toward the idea of having the suffering organism generate its own antibodies by stimulation of its antigens, or supply the necessary amount of antibodies to accomplish results in control and cure.

Perhaps the most widely known and most commonly used serums is Diphtheria Antitoxin. No doctor who values his reputation would dare dispute its efficacy in both prevention and treatment. With the Schick Test and its control, toxin-antitoxin, we seem to have in our hands the instruments for the complete eradication of this dread disease. Dating from 1891, when Behring and Wernicke administered anti-diphtheritic serum to a sick child in Berlin, we have constantly made progress in the development of this agent and its modern allies.

The administration of serums of any sort have practically the same contraindications. These are few. First, is any suspicion of a status lymphaticus. Second, is a tendency toward, or the easy occurrence of, attacks of asthma, though in the latter cases, divided doses may be given with safety. Third, the writer would mention the fact that it is advisable to be cautious and careful in inquiry concerning administration of the new Scarlet Fever Antitoxin, to determine if there has been administration of any toxin-antitoxin, or antitoxin of any sort during the prior six or eight months. This is brought out by the fact that in the administration of prophylactic dosages of Scarlet Fever Antitoxin during a recent mild epidemic of scarlet fever in Brunswick, our severest reactions, and one case of anaphylaxis occurred in children who

had last fall been given Diphtheria Toxin-Antitoxin.

Tetanus antitoxin is perhaps in more widespread and general use by the practitioner than any of the specific serums. No patient with a punctured, lacerated wound, with crannies and crevices which might become closed and harbor this anaerobic bacillus, should be allowed to go twenty-four hours without a prophylactic dose of Tetanus Antitoxin. While the toy pistol, as well as powder burns and wounds from the real ones, have been prolific sources of lockjaw, we find that within twelve years, wounds resulting in death from tetanus in 4th of July injuries declined from 406 reported cases to one, as results of uses of the antitoxin and saner celebrations. In the administration of over one thousand doses of the Antitoxin, the author has never encountered a severer reaction than a troublesome urticaria of two or three days' duration.

Antistreptococcic Serum for the prophylaxis and treatment of streptococcic infections, with so-called blood-poison or septicemia, has probably not attained the reputation of the two preceding serums in its effectiveness because probably of the fact that much is demanded of it in its content of bacteriolysin elements, or antibodies. But, there can hardly be any doubt of its efficacy as a prophylactic measure when streptococcic infection is anticipated. This serum comes under the class of those acting with bacteriolytic antibodies, in contradistinction to the antitoxic and bacterioscopic divisions or combinations of antitoxins and antibacterial serums, such as the antimeningococcic serum.

In the use of Antistreptococcic Serum, of course, it is necessary so far as possible to remove the primary focus or foci of infection; then, especially in the subacute and chronic cases, a raising of the opsonic and phagocytic index, may reasonably be expected. It might be well to call attention, however, to the fact that in this latter class of cases, the so-called vaccines, which act indirectly, instead of the serums, are generally used. The discussion of the latter mentioned biologicals is without the province of this paper, and mention is made only to call attention to the difference in the effects and usages.

Among the newer serums may be mentioned Erysipelas Streptococcus Antitoxin and Scarlet Fever Streptococcus Antitoxin. It has not been the experience of the author to use the former, as in the only case of erysipelas occurring in his practice since the advent of Erysipelas Antitoxin its administration was refused because a brother of the little patient's mother had died following administration of some serum in his war work as result of status lymphaticus, and she feared the effect of heredity in this condition. However, "Birkhaug (J. A. M. A., 1926, 86), reporting on the use of an erysipelas antitoxic serum prepared by the Dochez method of immunization, says that the results in sixty moderately severe cases have demonstrated the usefulness of the product."

Scarlet Fever Streptococcus Antitoxin has been used in Brunswick recently, and the report on its use is practically the only original portion of this paper. The product used was standard, being manufactured by the house supplying the State Board of Health with biologicals, and there is no doubt but what the same results and reactions might have been encountered with any such preparation from elsewhere. In all some twenty-five injections of the prophylactic dosage were given. No use was made of the Dick test for determination of susceptibility, nor of the blanching test for the diagnosis of the disease itself in the early stages; nor were any therapeutic doses administered during the course of the disease in any of the thirteen cases reported during the mild epidemic.

In twenty-two of the twenty-five administrations, reactions were observed—the three unreported on not being seen by the physician subsequent to administration. These reactions, in addition to the slight malaise and subfebrile temperature observed in even the mildest, practically all showed dermal reactions of three distinct types and sometimes two types in the same case following each other at one to three days' intervals or merging one into the other. Reports from other places—Cave Springs, Ga., for one—did not give such histories of universal reactions as we experienced in Brunswick. The rashes, or skin eruptions we observed were: First, a localized or widely disseminated scarlatiniform

eruption, accompanied in two or three cases by other symptoms, including the fever, of typical cases of mild scarlatina. Second, in six or eight of the cases in which the Antitoxin was administered, there was a discrete eruption resembling measles. Third, in over fifty per cent of the cases, there appeared in from twenty-four to forty-eight hours, an intense urticaria, with wheals sometimes five or six inches in diameter, persisting for several hours, disappearing and reappearing for twenty-four hours or more in spite of treatment locally and systemically.

One of my cases showed this urticarial condition to the point of dermatographism, and even after the subsidence of the eruption coming out along the lines of the mild scratches, there persisted the lines and figured in hyperæmic marks on the clear skin two or three days after. One case showed a pronounced anaphylaxis, the patient coming very near death from profound shock for twelve or more hours' duration, during which time all the usual stimulants, including adrenalin, atropin, etc., were administered to save his life. It might be well to mention here again, that this case, as well as practically all who received the serum, had just last fall been given Diphtheria Toxin-Antitoxin.

It is the author's opinion, based on a study of the literature concerning the heat stability and potency in inverse ratio to the invasiveness of the scarlatinal streptococcus, together with the known fact that—differing from results of experiments with other bacterial toxins—the toxins of this organism seem to produce symptoms almost comparable to those induced by inoculation of the living organism itself, that further experimentation is necessary before undoubtedly perfectly safe serum of this sort is produced. Though the reports are all favorable to its use as a therapeutic agent, the literature concerning reactions, toxicity, non-appearance of skin eruptions, etc., all seem to be at variance with our local experience, both as to percentage of incidence and time of appearance of the skin manifestations.

Naturally the considerations of the attractive theory of immunization have led into fields of experimentation with practically every known infectious disease. Having an-

nounced to the world that the cause of measles was the streptococcus morbilli, and having established the "Ferry reaction," similar to the "Schiek reaction" in diphtheria and the "Dick reaction" in scarlet fever, as a diagnosis of susceptibility to measles, Drs. Ferry and Fischer of the Parke, Davis & Company Research Laboratory, as reported in the J. A. M. A., are almost ready to recommend the preparation of prophylactic and therapeutic serums for prevention and treatment of the measles. Preceding their work came word from Copenhagen that 86 out of 91 children in Blegdam's Fever Hospital were successfully immunized against measles with serum obtained from convalescents between the seventh and ninth days after the fall of temperature to normal, which serum was prepared at the State Serum Institute. Lenstraup reports the forestalling of 3 hospital epidemics by means of measles convalescent serum.

Now, with regard to use of the Diphtheria Toxin-Antitoxin, it might be said that in thousands of injections of this mixed toxin-serum, any sort of reaction is negligible, even in those cases which might have shown a hypersensitiveness to some other serums or proteins. Hypersensitiveness is a condition analagous to drug idiosyncrasies, and should be diagnosed in practically every case in which there is any reason to suspect it. Inasmuch as serum reactions may be abolished or modified, there is no great need to fear them to the extent of withholding necessary and indicated treatment.

Tests for sensitivity are made both intradermally and in the conjunctival sac. The intradermal test is best, of course, but the reaction in the conjunctiva may be checked by adrenalin, epinephrin, or suprarenalin solution. Reducing serum reactions in susceptibles who are hypersensitive may be accomplished by breaking the doses, while desensitization may be accomplished in most instances by the injection of a small amount of the given serum an hour before the balance.

Summary: Serology has become one of the most exact sciences of modern medicine. In the biologicals, especially the various serums, toxin-antitoxins, and antitoxins, we have just as specific, if not more specific, medication

than the arsenicals and mercury in syphilis, and quinine in malaria.

Even the blanket prescription of "normal serum" in cases of obscure known infections is better than the cumbersome, troublesome and sometimes inefficient methods of symptomatic treatment of years ago.

We seem in a fair way to practically eradicate many of the commoner afflictions of childhood especially, which left in their wake crippled organs, defective functions, and impaired general vitality.

In all lines of treatment we seem to be leaning more and more on prophylaxis and therapy along natural bio-chemic lines, and our nearest approach to this ideal is in a greater use of the fundamental laws of immunity, immunization and cure.

Serum reactions and serum sickness are usually more than an evanescent manifestation of hypersensitiveness, and should not deter us from the use of potent agents, while there are ways of avoiding most of the reactions.

Obvious anaphylaxis occurs in about one in 20,000 cases of serum or vaccine administration, and we might suspect in those such a degree of sensitivity had probably been superinduced. A good motto is: investigate and desensitize, if possible, before injecting.

In practically all serums, antitoxins and toxin-antitoxins on the market today much experimentation has gone, and we may confidently rely upon more than a reasonable degree of safety in their use. As anticipated from our use in Brunswick of the Scarlet Fever preparation, one of the manufacturers has withdrawn his product from the market for further experimentation and tests, which will obviate some of the untoward effects now experienced probably in inexperienced hands.

In closing, allow the author to express his obligations and thanks to Eli Lilly & Company; E. R. Squibb & Sons; Parke, Davis & Company, and to the medical fraternity of Brunswick for their valuable contribution of literature reprints, clinical reports and data used in the preparation of this article.

THE ROENTGEN EVIDENCES OF GALL-BLADDER DISEASE*

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Athens

Anatomists describe the gall-bladder as a pyriform hollow viscus, about $1\frac{1}{4} \times 3$ inches in size, bounded on the north by the lower surface of the liver, on the south by the transverse colon, and on the east is frequently in close relation with the antrum of the stomach or duodenum. Its fundus usually lies against the anterior abdominal wall, while its body runs backward and upward tapering down to form the cystic duct. Its outer wall is peritoneum, usually incomplete, its middle layer is musculo-fibrous, while its inner wall is mucosa formed by columnar epithelium. Its exact position and shape, however, is subject to great normal variations as we have found since being able to visualize it in the living subject.

For our purposes we may consider it as having two important functions, first the storage of bile and second the concentration of bile. We conceive of it as taking the surplus bile from the liver and storing it until it is needed for whatever role it may play in the digestive process, whereupon it empties the bile through the cystic and common ducts into the duodenum. As we all know the matter of whether or not the gall-bladder empties through the common duct has been questioned by certain observers, but we shall offer certain evidence that it does so empty later. We know that the gall-bladder does concentrate the bile by removing the fluid elements through its lymphatics, as the solid contents of gall-bladder bile is six to eight times as great as in bile found in the hepatic duct. We also note the color change from yellow to greenish.

To touch briefly upon pathology, the conditions with which we deal in the gall-bladder, exclusive of neoplasms, are various grades of acute and chronic inflammatory processes which may or may not result eventually in the formation of stones. There is evidence that gall-bladder inflammation is usually secondary to an inflammatory process in the

*Read before the Eighth District Medical Association, Royston, Ga., August 11, 1926.

liver, spreading to the gall-bladder secondarily, and we should remember that the serous and muscular layers are usually first affected, and the mucous layer last, contrary to our natural conception. And that the formation of stones is a very late phenomenon in the process and probably does not occur for many years after the onset of the infection. If the liver is the primary seat of the disease, why is it that removal of the gall-bladder results in a clinical cure? Probably because the liver, being a vascular organ, is able to cure itself after the vicious circle of infection and reinfection is broken by the removal of the gall-bladder, which possesses very little power of recuperation. I neglected to mention under anatomy the very rich lymphatic connection between the gall-bladder and the under surface of the liver, through which the one can readily infect the other. The breaking of this connection by removal of the gall-bladder gives the liver an opportunity to recuperate which it usually does if the disease is not of too long duration.

Now let us consider the evidences which a diseased gall-bladder will give us on the X-Ray film. In the first place we are sometimes able to produce a shadow of gall-stones on the film, not very often. This is due to the fact that most gall stones are of relatively low density. It is only when there has been a deposit of calcium salts around the stone that we visualize it directly. In still other cases we are able to see the actual gall-bladder shadow on the film. It has been the commonly accepted belief that a gall-bladder which, by thickening of its walls or of its contents, has become sufficiently dense to stand out against the surrounding structures on the film, is pathological. This has been questioned and is probably subject to exception.

Then we have certain so-called indirect evidences of disease elicited by examination of the intestinal tract by opaque meal. Among them we may mention deformities of the stomach antrum, the first or second portions of the duodenum and the transverse colon by an adherent gall-bladder. Second the so-called gall-bladder seat, or the concave impression on the antrum or bulb due to pressure from a distended gall-bladder. Third the reflex

changes in gastric tone, motility, etc., often seen in lesions of the gastro-intestinal tract extrinsic to the stomach. All of these indirect signs have a value in reaching a diagnosis, but all are capable of simulation by other than gall-bladder pathology, and should be interpreted with caution.

It has been known for some time that certain compounds of phenolphthalein were excreted by the liver and more or less successful efforts were made to estimate the liver function by observing the amount of certain substances which it could excrete into the bile, or rather the amount which it failed to excrete. In February, 1924, Graham, Cole and Copher of St. Louis, working with tetra-bromophenolphthalein given intravenously, reported their results in the *Journal of the A. M. A.*, finding that this substance not only was excreted by the normal liver, but was concentrated in the gall-bladder in sufficient amount to produce a clear shadow of the gall-bladder on the Roentgen film. Later on they found some ten or twelve other halogenated phenolphthaleins which had this same property, and later turned their attention to tetra-iodophenolphthalein, the iodine compound having a greater atomic weight and hence requiring a smaller dose. Still more recently they have been working principally with a third derivative phenol-tetra-iodophthalein, which seems to have some advantages over either of the others.

There were reactions of rather severe type after the bromine salt, somewhat less after the iodine salt, and, up to the present time, still less after the third compound. This led to efforts to produce the same results by administration of the salt by mouth. Since the salt is changed to an insoluble acid salt by the HCl of the stomach it is necessary to administer it in enteric capsules or pills. Various substances have been tried to accomplish this result, including stearic acid, keratin and numerous others. Some workers have reported good results obtained by simply enclosing the gelatine capsule containing the dye in a second larger capsule, containing soda, so that the soda completely surrounds the inner capsule and protects the dye from the acid stomach contents.

A great argument is now in progress among Roentgenologists regarding the relative merits of the two methods. It is obvious that the intravenous method, by introducing the dye directly into the circulation, obviates a number of objections inherent to the oral method. I think it stands to reason that the intravenous method is the more reliable, the objections to it being the more or less frequent and more or less severe reactions, and the greater difficulty of administration. It seems likely that the objectionable reaction will be obviated in future by further refinements in the product, when intravenous administration will become a safe routine procedure. Personally I have considerable respect for the human circulation, and approach the matter of introducing foreign substances into the blood stream with a good deal of hesitation. Consequently, with one exception, my use of the method has been confined to the oral administration of the dye. I have used the iodo-salt only.

For oral administration one uses about 3 grams of the dye for a patient weighing 70 kilos, some use larger doses, varying the amount proportionately to the weight of the patient. It is divided into 5-grain capsules. I have used only the keratin coated capsule. The patient is given a light supper. At 9:00 P.M. he goes to bed and is given two capsules every 15 minutes until all are taken. He should drink water freely with each dose and should lie on the right side until half an hour after taking the last capsule to facilitate their passage out of the stomach. The morning meal is omitted and the patient should avoid even the odor of food in the morning. He reports for the first examination at 9:00 A.M. The examination is made with patient prone on the Bucky diaphragm with the usual gall-bladder technique. The first film used should be large enough to cover the whole abdomen so as to show any undissolved capsules that might be in the intestines or any unabsorbed masses of the substance. If no gall-bladder shadow is seen, several other exposures should be made at once to check up on possible technical errors.

A second series is made four hours later. After this the patient is given a meal con-

taining fatty foods, especially cream, and two hours later another X-Ray examination is made. Occasionally further examination on the following morning is desirable.

Now let us see what happens in the normal gall-bladder. The capsules pass through the pylorus undissolved, and are dissolved in the small intestine. The salt is carried by the portal circulation to the liver. The liver, if normal, excretes the salt into the bile but not in sufficient concentration to cast a shadow on the film. The iodo-containing bile is carried to the gall-bladder. Here water is removed until the bile is concentrated six or eight times, i. e., the solids are increased to that extent. Now we have a gall-bladder containing sufficient opaque bile to cast a distinct shadow on the film.

Four hours later the shadow should be practically as dense, often more so, than at the previous examination. This entire process has required 16 hours. Now, upon administration of a fatty meal, the gall-bladder contracts and forces its contents through the cystic and common ducts into the duodenum. When we make our next examination we find a gall-bladder very much diminished in size.

Some time back we spoke of certain theories to the effect that the gall-bladder does not empty thru the cystic duct, that once bile enters the gall-bladder it never again passes through the duct, but is absorbed by the lymphatics. Certain experiments with the visualization of the gall-bladder seem to refute this theory. Dogs whose gall bladders have been visualized by the Graham method are operated upon and the common bile duct ligated in such a manner as not to interfere with the lymphatic supply of the gall-bladder. The opaque substance remains in the gall-bladder until the death of the dog. Clinically, a case has been reported where a patient's gall-bladder was visualized, showing stones, and shortly afterwards he was seized with an attack of biliary colic. This patient's gall-bladder remained opaque to the Roentgen-Ray for 21 days, whereupon it disappeared. Presumably there was a stone blocking the common or cystic duct. These observations would seem to indicate that the gall-bladder cannot empty itself of the iodo-impregnated bile except

through the cystic duct. It seems likely that the same rule would apply to untreated bile.

So, in order to complete the cycle of normalcy, we must get the capsules into the stomach, the patient must not vomit them, they must pass into the intestine and be absorbed and thence carried by the portal circulation to the liver. The liver must be functionally normal to the extent of excreting the dye into the bile, and the hepatic and cystic ducts must be patent. The gall-bladder must have a wall functioning sufficiently to concentrate the phthalein and the gall-bladder must be sufficiently elastic to contract and force the impregnated bile out, and finally the common duct must be patent to allow its passage into the intestine. We thus see that there are a number of links in the chain, all of which must be considered in interpreting the findings. Care in controlling the factors which are under our control and in checking up on those which are not is most essential. If we find intact capsules or undissolved masses of the salt in the intestine at our first examination, the results of course are void.

Now suppose, having fulfilled the technique to our satisfaction, we find no sign of a gall-bladder shadow. The first possibility is that the liver has not excreted the salt into the bile. However, except in the presence of advanced hepatic disease as cirrhosis or cancer, we believe the liver can always or nearly always excrete the salt. Then we either have obstruction to the hepatic duct, which is rare and accompanied by jaundice, or stone or other obstruction in the cystic duct, or a gall-bladder which has lost its ability to concentrate the salt. Stone in the common duct, with great distension of the gall-bladder might give a no-shadow film also, more probably a faint shadow.

If gall-stones are present in the bladder one may get a no-shadow, due to the co-existent cholecystitis and inability of the gall-bladder to concentrate or, if the gall-bladder can concentrate the salt, one will get an irregular distribution of the shadow, often a mottling. This is due to the bile of greater density surrounding the stones which are of lesser density. In some cases it has been observed that gall-stones which were previously invisible, become visible after administration of the iodo salt,

due to absorption of some of the salt by the gall-stone, thus increasing its density.

In between the clear shadow and the no-shadow cases we have the faint-shadow group. Theoretically a faint shadow would tend to indicate a gall-bladder diseased to a certain extent, so that it can only partially function in concentrating the bile. The faint-shadow cases, as reported in the literature, have shown the greatest percentage of errors. There are so many links in the chain leading up to a perfect visualization that one had best interpret the faint shadow with a great deal of caution.

One other point: If an apparently normal gall-bladder fails to empty itself after the appropriate food stimulus, the presumption is strong that its walls have lost some of their elasticity and contractility and that pathology is present even though it has been able to *concentrate* the salt normally. And finally, we sometimes get a delayed appearance of the salt in the gall-bladder in shadow-producing concentration. This also is an important finding suggestive of pathology.

Time forbids any detailed discussion of the value and limits of the method. Briefly, a shadow which is in every way normal, including its reduction after fatty food, is probably very strong evidence of a gall-bladder entirely normal from the functional standpoint. A negative diagnosis based on this evidence is probably stronger than a positive diagnosis based on a departure from the normal findings. Having demonstrated a normal gall-bladder in this way, one is directed toward some other location of the cause of symptoms. In one case recently, supposed to be gall-bladder disease, there was a normal reaction to the Graham test, our attention was directed elsewhere and trouble was found in the right kidney.

The no-shadow case is presumptively gall-bladder disease or at least pathology in the biliary tract, the other possibilities already having been enumerated. It is well to repeat the examination in the no-shadow or faint shadow case. A second result identical with the first strengthens one's hand considerably.

The consensus of opinion at present is that the Graham test should not be used as an independent method, but should be employed in

addition to the older methods mentioned in the beginning of the paper. Various observers reporting on both oral and intravenous methods, give correct results as running between 85 and 97%. The intravenous method averages three or four per cent higher in accuracy. Therefore many workers make it a rule to give the oral test first, and, if there is abnormal result, follow it with the intravenous method as a check up. In this way one obviates the risk of reaction in the patient with the normal gall-bladder. Obviously, in any method with a three to twelve per cent possibility of error, one would be foolish to pin his whole faith on one finding. Just as obviously it would be just as foolish to hang your while diagnosis on one peg in any condition more complicated than a Colles' fracture. Therefore, it seems to me that we should feel that in the Graham method of gall-bladder visualization we have a very valuable contribution to our diagnostic resources, certainly a step in the right direction. We should give the findings by this method due weight in our efforts to reach a diagnosis, but we should not depend on it exclusively. It should be merely a link in the chain of evidence on which we make our diagnosis—excepting, of course, those cases giving unmistakable evidence of gall-stones.

IMPORTANT NOTICE

The Summer Clinics of the Emory University School of Medicine begin on July 11th. All members of the Association are cordially invited to attend.

THE WASSERMAN REACTION IN RELATION TO THE DIAGNOSIS OF SYPHILIS*

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There has been given a great amount of time and study to the various blood tests to determine the syphilitic antibody in blood serum and spinal fluid. Various tests have been

used, but to date no one test gives any greater accuracy in the work than the Wasserman reaction.

It is true that the reaction is not absolutely specific. As we find positive reactions in other diseases and conditions than syphilis, namely frambesia, malaria, sometimes typhoid, in tubercular types of leprosy, and immediately after an ether or chloroform anesthetic.

We sometimes get a negative reaction when cases are strongly positive. When alcohol in any form is taken, a very strong serum may give a negative reaction. After a dose or two of salvarsan, the serum may become negative, but the most important negative finding, and the one to guard against most, is the one gotten the first week or two of the first stage of the disease.

The accuracy of the test also depends largely on two factors other than the serum itself. First, the method of obtaining the specimen, and promptness in transmission to laboratory. All blood should be gotten under very strict asepsis, and then examined at the very earliest date possible. When any delay exists in examination, the specimen should be kept at a very low temperature.

The second factor, which controls the accuracy of findings, is the laboratory. This is a very delicate test, and unless made by a technician who is absolutely accurate in his technic, errors will be made and false reactions given. All laboratories should be checked continually, both by themselves and by the physician sending same specimens to other laboratories. False reports can and do lead to so much harm to both patient and physician, that at all times laboratory findings should be verified by both history and clinical findings.

When we speak of the Wasserman reaction, we mean the compliment-fixation test that is applied to the blood or spinal fluid of a person suspected of having syphilis. The findings from this test are recorded as negative or positive reaction. The positive reaction is further divided according to strength of reaction, and is usually recorded as plus I, II, III and IV. All plus I reactions should be regarded as negative unless clinical symptoms

*Read before the Eleventh District Medical Society, Quitman, Ga., December 14, 1926.

confirm the diagnosis. Plus II is very suggestive, and III and IV as positive of syphilis, except in the few instances given above. With the proper care in taking history, and carefully considering the clinical symptoms of cases, errors of diagnosis will be avoided. A diagnosis of syphilis with a positive Wasserman as the only diagnostic point should be made with the utmost care, because to give a false diagnosis of syphilis is almost as bad as failure to diagnose a case as such. So many times homes are broken up and the morale of patients is lowered so much that it behooves us to make a careful study of all cases, especially those showing positive Wasserman as the only symptom.

In all cases of a weakly positive reaction, the blood should be further studied. It is sometimes necessary to make daily tests, as practically all cases show a variation in strength of reaction, one day may be weakly positive, next strongly, and so on. This is especially true in the first stage of syphilis, when you either get a weakly positive or a negative reaction. To tell a patient that he hasn't syphilis, merely on laboratory findings in this stage, would be very erroneous. You will also find some variance in reactions in the second and third stages, also in congenital syphilis. In the reaction on the spinal fluid, the variation depends more on the stage of the disease. In the first stage a positive reaction is seldom gotten, but in the second stage, about 25% give a positive reaction, this is slightly increased in a tertiary stage.

The variation of strength of reactions depends largely on the stages of the disease, to the amount of treatment the patient has had, and in all these cases the history of former treatment should be considered carefully, in considering both laboratory and clinical findings.

In all cases of suspected syphilis, when reaction is continually negative, a provocative Wasserman test should be made. This will in a certain number of cases prove very helpful in clearing up the diagnosis. The percentage of positive reactions from this test, are small, but of great value in doubtful cases.

The Wasserman reaction affords the greatest means of check on treatment, but unless thoroughly understood, a number of patients will be turned adrift, thinking themselves well, to later show up with marked syphilitic lesions, which should have been avoided by continuation of proper treatment in the first place, but due to negative reaction of blood, were told that they were cured, but in fact were only partially controlled. This fact should teach us never to tell patients that they were cured, until several negative findings over a period of from one to two years after last treatment, and clinical symptoms also negative. Always have patients to return at regular intervals for these tests, stressing the importance so much that they will comply with same.

There are a number of indications for the Wasserman test, in addition to the normally suspected cases. In some of the larger institutions, a routine blood Wasserman is made on all patients, but in the general practice, and in smaller institutions this is not practical, but think a Wasserman should be made when possible, before all operations, in all cases of bone injury when union is delayed, in cases of soft tissue injury in delayed healing, in all skin lesions that can't absolutely be diagnosed, in cases of slight evening temperature and headaches, and numerous other conditions.

The spinal fluid Wasserman should be made on all cases, showing any neurological symptoms with any history of possible syphilis. All cases of advanced syphilis, a spinal Wasserman should be made, as it is very important to make an early diagnosis. This means a possible cure and even when a cure is not possible, an arrest of symptoms is very important.

A spinal puncture to collect specimen, is looked upon as a very dangerous procedure by some, but when done properly, cause very little discomfort or trouble to the patient. There are so many indications for both blood and spinal fluid Wassermans, that it would be impossible to enumerate all in so short a paper, but have tried to give some of the more important.

THE DOCTOR'S WIFE*

MRS. W. C. MCCARVER
Vidette, Ga.

Of all the people in the world, no doubt, the doctor's wife feels that she has more peculiar experiences than any one else, thus making her feel that life's work is hard. But the ideal wife for the doctor, can somehow meet her personal, social and wifely duties and still see that happiness that comes only from being a doctor's wife. Let us think, for a while, of some things expected of her, and think of the results.

In the first place, the doctor's wife is the wife of a professional man. That position carries with it some significant phases. One of these is that she must be careful of her appearance, both physical and personal. Now, in some places, especially in small towns, there is an opinion among the ladies, that the doctor's wife tries to outdress her surroundings. Of course, such will not take well and she should guard against such. But at all hours of the day there are people who call in person at the house to see the doctor. Is the doctor ever present to answer these callers? If he cannot be found at the office the patient frequently calls at the home, especially in the small town. So it is left to the wife to answer these callers, and in order to make a good impression, she must be neat and well groomed in every respect. In addition to being neatly dressed, the doctor's wife must meet every one with a smile and show a courteous spirit always.

Then comes the responsibility of the wife to her home and family. Never can this be neglected. If she does her duty by them; the children and the house work demand much of her time. The wife's pride will cause her to care for this. But beyond that, she must make the home a "haven of rest" for her husband, and for it to be such, all within must be in harmony—in the first place, a happy spirit, then a cozy living room with the books and papers he loves, close by. Edith Shackelton, in the February *Cosmopolitan*

says, "Most wives are failures because they spend many leisure hours of the day keeping themselves beautiful, and when the husband comes in from a hard day's work, they look on him as an exciting entertainment." How can the doctor be gay and lively after a full day in the office or on the road? If the wife is ideal, she will consider her husband's feelings at such a time: for only in his home can he find peace and quiet.

Some wives say they cannot be bookkeepers. Perhaps they could not for some firm; but what can be more help to her husband than to check up on his accounts every month and see that all delinquent accounts are cared for. In that way his bills will be paid more promptly, and his family will have access to more pleasures. Some may say that the doctor can employ a bookkeeper. That may be, but how often is such successful? Not often. A doctor's work is of a confidential nature, and one often finds that a trusted person has disclosed something which the doctor's records revealed. Who, then, is the logical person to help him? Who is more deeply interested in his success, financially and professionally, who more careful of her every word not to betray a confidence, than the doctor's partner—his wife? And an ideal wife will realize that even though she is her husband's business partner, to the outside world she must be ignorant of his relations to his patient.

But other than being a good business woman and housekeeper, the doctor's wife has a duty or duties to society. We know that in the communities where the doctor's wife is most successful, his wife is an active member of all organizations, as Woman's Club, Parent-Teacher Association, Missionary Society of the Church and any others that there might be. Of course, all this means that her's will be a heavy program, but the very presence of the doctor's wife at these meetings will help her husband's profession in that it shows that the wife, as well as the doctor is interested in the community. Too, the doctor himself must attend a number of these meetings, both business and social. In order that he may get the most from such, his wife

*Read before the Burke County Medical Society, February 9, 1927.

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Profession of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

JUNE, 1927

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

THE SEVENTY-EIGHTH ANNUAL SESSION

The seventy-eighth annual session of the Association at Athens marked another milestone on its road to service to the profession in Georgia.

The program included addresses by the retiring president, Dr. V. O. Harvard, and Dr. E. A. Hines of Seneca, S. C. The latter spoke at a public meeting on the subject "Periodic Examinations of Apparently Healthy Persons." An unusual number of well received papers were presented at the scientific sessions.

Athens hospitality was featured by many entertainments given by the Clarke County auxiliary to the visiting members of the auxiliary of the state Association, and by courtesies extended through the local clubs. The Clarke County Medical Society entertained the visitors at a barbecue.

The commercial and scientific exhibits were well placed and well attended.

The officers and members of the Association wish to thank the members of the Clarke County Medical Society, the Woman's Auxiliary, the people of Athens and Clarke County for their excellent entertainment, whole hearted assistance and co-operation during our sojourn in their midst. We are indebted to our distinguished past President, Dr. V. O. Harvard, Arabi, for his unselfish devotion to duty and untiring efforts to render the greatest service possible at all times for the welfare of the Association, the medical profession and the people of our Commonwealth.

We are pleased to remember with our heartiest thanks the *Banner-Herald* for its many favors, acts of kindness and publicity.

Officers were elected as follows:

President, W. A. Mulherin, Augusta.

First Vice-President, H. M. Fullilove, Athens.

Second Vice-President, Cleveland Thompson, Millen.

Delegate to the American Medical Association, Allen H. Bunce, Atlanta.

Alternate to the American Medical Association, William R. Dancy, Savannah.

Councilors elected for a term of three years:

First District, William H. Myers, Savannah.

Second District, C. K. Sharp, Arlington.

Third District, G. Y. Moore, Cuthbert.

Fourth District, O. W. Roberts, Carrollton.

The next annual session will be held at Savannah, May 9, 10, 11, 1928.

URINARY ANTISEPTICS

The impropriety of indiscriminate use of urinary antiseptics and vaccines in cases of pyuria is set forth in an article by Reinle and DuPuy in California and Western Medicine of December, 1926.

Emphasizing their limitations and contraindications, and that sterilization of the urinary tract is dependent upon much more than the choice of drugs, they note: (1) Urinary tract infections, excluding those of the urethra, are seldom primary, and (2) the kidney, ureter, and bladder may become infected by bacteria that might be present in the urine without causing injury except for the pres-

ence of some mechanical obstruction to the urinary flow.

With these facts in mind, the easy method of prescribing such favorite remedies as quinine, salol, urotropin, acriflavin, and hexyl resorcinol without attempt to determine the nature and location of the infection is, to say the least, distinctly contraindicated.

A careful physical examination is, of course, the first essential in the diagnosis of any physical disorder and may disclose foci that will indicate the nature of the urinary lesion. In many instances cystoscopic study is necessary before the proper treatment can be instituted.

"How many patients with ureteral stricture, ureteral kink, and such obstructive causes of pyuria are daily being treated by the administration of hexyl resorcinol?"

"How many patients with pyuria caused by calculus in the kidney, ureter, or bladder are being treated by the administration of urotropin?"

"How many patients with urine cloudy with pus due to tuberculosis of the kidney, are being treated with vaccines?"

Even in these days of relatively scientific medicine, empirical methods still make for loss of time and added expense to the patient.

PARKS MEMORIAL HOSPITAL ENDORSED

At the recent annual meeting the Medical Association of Georgia, upon motion of Dr. E. C. Thrash, unanimously endorsed the Parks Memorial Campaign which has for its object the erection of a memorial hospital at the Georgia State College for Women at Milledgeville. Under the able leadership of Dr. Parks the number of graduates from the college increased from thirteen in 1924 to four hundred fifty-one last June, and the enrollment increased over one thousand. His devotion to duty, his stewardship of funds appropriated by the State, his spirit of service are all most worthy of commendation. He built a college with a curriculum closely related to the life and needs of the students. Not one of his accomplishments is more outstanding than the practical fulfillment of his ideal "More health in education and more education in health." Long before the draft for the World War gave the impetus to the importance of

health teaching, the college insisted upon health and physical well-being as matters of primary concern. In 1911 there was direct instruction in health and hygiene, and at present a minimum of six college hours of health education is required for graduation. Additional courses in health are offered as electives for those wishing to specialize in it. Therefore, the Alumnae of the Georgia State College for Women are planning, with the aid of friends, to erect a hospital on the campus to the memory of Dr. Parks. In doing this, there will be an ongoing of the fulfillment of his watchword of service, and will continue to embellish his memory. He did not go unwept and unsung and with the aid of friends he shall not go unhonored.

The Fulton County Medical Society had previously endorsed the movement after a committee from the Alumnae appeared before the society and after Dr. Thrash had given a talk on the life and works of Dr. Parks, whom he acclaimed as one of the greatest men Georgia has ever produced.

GEORGIA STATE BOARD OF HEALTH BUREAU OF VITAL STATISTICS

The State Board of Health announces that during the month of March, 1927, there were reported 2,679 deaths corresponding to a death rate of 1014.1 per 100,000 population. This death rate is 25 per cent lower than the rate 1353.9 for March, 1924, the last year for which complete returns were received.

This big decrease in the death rate of March, 1927, is undoubtedly due in part to incomplete registration. The fact that incomplete registration is in a measure responsible for this low death rate tends to emphasize the increase shown in the death rates for: Automobile Accidents, Cerebrospinal Meningitis, Pellagra, Poliomyelitis and Typhus Fever. Special attention is directed to the big increase of over 32 per cent in the death rate from Automobile Accidents of the past March compared with March of 1924.

Although these data may serve as an approximate index to the health conditions in our state it is deplorable that incomplete registration prevents a great state like Georgia

MORBIDITY AND MORTALITY REPORT FOR MONTH OF MARCH, 1927

Figures for 1927 are provisional, subject to correction
(Figures for 1927 are provisional,
subject to correction)

CAUSE	REPORTED FOR MARCH					
	Number		Annual Rate per 100,000 Population			
	1927		Cases		Deaths	
	Cases	Deaths	1927	1924	1927	1924
All Causes	2679				1014.1	1353.9
Acute Inf.						
Conjunctivitis	3		1.1	6.2		
Anchylomiasis	5		1.9	11.9		
Anthrax						
Automobile Accidents	*	29			11.0	7.4
Cancer (All Forms)	*	109			41.3	47.9
Cerebro-spinal Meningitis	3	8	1.1		3.0	1.2
Chicken Pox	211		79.9	42.9		
Diphtheria	58	8	22.0	26.1	3.0	5.1
Dysentery	9	7	3.4	1.2	2.6	4.3
Gonorrhea	205		77.6	47.1		0.8
Heart Disease	*	238			90.1	120.0
Homicides	*	30			11.4	19.5
Influenza	1461	154	553.0	89.2	58.3	75.2
Malaria	48	12	18.2	14.8	4.5	7.0
Measles	594	17	224.8	433.6	6.4	52.2
Mumps	126		47.7	79.5		
Nephritis	*	302			114.3	114.9
Pellagra	16	28	6.1	0.4	10.6	7.4
Pneumonia	212	226	80.2	89.2	85.5	183.5
Poliomyelitis		5		0.4	1.9	
Rabies (in man)	1		0.4			0.4
Scarlet Fever	70		26.5	23.4		0.4
Septic Sore Throat	22	2	8.3	2.7	0.8	
Smallpox	359	4	135.9	227.1	1.5	1.6
Suicides	*	18			6.8	8.6
Syphilis	142	43	53.8	50.3	16.3	17.1
Tetanus	1	5	0.4	0.8	1.9	3.9
Trachoma	1		0.4	1.2		
Tuberculosis (Total)	72	188	27.3	23.0	71.1	105.5
Typhoid Fever	16	15	6.1	4.3	5.7	5.8
Typhus Fever		1			0.4	
Whooping	240	14	90.8	68.6	5.3	13.2

*Cases not required to be reported.

from knowing its true death rate. Georgia is one of only six States in the Union that fails in this respect. However, this embarrassing situation will be corrected when our citizens learn the true value of these data and then demand complete registration.

SOCIETY OF NEUROLOGICAL SURGEONS

The Society of Neurological Surgeons held its annual meeting in Atlanta on May 20th and 21st as the guest of Dr. Charles E. Dowman. This is the first time the society has ever held a meeting in Georgia, and it was a distinct tribute to the personal qualifications and scientific attainance of Dr. Dowman. The Medical Association of Georgia is fortunate indeed in having one of its members receive this national recognition. Those in attendance pronounced it one of the most successful in the entire history of the society. The program was as follows:

PROGRAM OF SOCIETY OF NEUROLOGICAL SURGEONS, ATLANTA, GA., MAY 20-21, 1927

FRIDAY, MAY 20, 1927

8:00 A.M. PIEDMONT HOSPITAL.

Operations.

- (1) Bronchial Plexus Injury.
- (2) Glioma (recurrent) Left Cerebello-Pontile Angle.

Demonstration of Patients.

- (1) Cases of Glioma Treated by Decompression and X-Ray.
- (2) Pituitary Tumor (to be operated Saturday).
- (3) Pituitary Tumor Treated with X-Ray.
- (4) Adhesive Arachnoiditis (to be operated Saturday).
- (5) Suprapubic Bladder Drainage in Cases of Paralysis. (Dr. Bailey.)

1:00 P.M. LUNCH. Atlanta Athletic Club.

2:30 P.M. STEINER CLINIC. (Library.)

- (1) Microscopic Studies of Gliomata and Demonstration of Gross Specimens, Drs. E. L. Bishop and W. A. Smith.
- (2) Report of Series of Head Injuries, Drs. J. C. Weaver and Hugh Cochran.
- (3) Retrobulbar Neuritis, Dr. Grady E. Clay.
- (4) Alcohol Injection of Gasserian Ganglion, Dr. Dowman.
- (5) Exhibition of Roentgen Ray Films of Cranial and Intra-cra-

nial Lesions, Drs. R. H. Fike and Dowman.

5:00 P.M. Trip to Stone Mountain.

6:30 P.M. DINNER. Druid Hills Golf Club.
(Informal.)

9:30 P.M. Business Meeting, Biltmore Hotel.

SATURDAY, MAY 21, 1927

8:00 A.M. PIEDMONT HOSPITAL.

Operations.

(1) Pituitary Tumor. (Intra-cranial approach.)

(2) Cerebellar Exploration.

Demonstration of Patients.

(1) Unilateral Laminectomy for Compression Paraplegia due to Tuberculosis of the Spine.

(2) Intractable Pain in Right Arm Relieved by Posterior Root Section.

(3) Cervical Rib.

(4) Buerger's Disease Treated by Sympathectomy.

1:00 P.M. LUNCH. With Mrs. Dowman at 630 Linwood Ave., N.E.

2:30 P.M. STEINER CLINIC. (Library.)

(1) Neurosurgical and Orthopedic Treated of Spastic Paralysis. Motion Pictures Before and After Sympathectomy, Drs. Micheal Hoke and Dowman.

(2) Formation of Macular Star in Non-Renal Cases, Dr. F. P. Calhoun.

(3) Spinal Adhesive Arachnoiditis with Brown-Sequard Syndrome, Dr. W. W. Young.

(4) Motion Pictures of Nystagmus, Dr. Loyal Davis.

(5) Round Table Discussion of Roentgen Ray Treatment of Brain Tumors. Led by Dr. R. H. Fike.

The members present were as follows: Dr. A. W. Adson, Rochester, Minn.; Dr. Chas. Bagley, Jr., Baltimore, Md.; Dr. Claude C. Coleman, Richmond, Va.; Dr. Loyal E. Davis, Chicago, Ill.; Dr. Chas. E. Dowman, Atlanta, Ga.; Dr. Chas. A. Elsberg, New York City; Dr. Howard W. Fleming, San Francisco, Cal.; Dr. Chas. H. Frazier, Philadelphia, Pa.; Dr. Francis C. Grant, Philadelphia, Pa.; Dr. Samuel C. Harvey, New Haven, Conn.; Dr. Gilbert Horrax, Boston, Mass.; Dr. J. J. Keegan, Omaha, Neb.; Dr. Harry N. Kerr, Washington, D. C.; Dr. Wm. J. Mixter, Boston, Mass.; Dr. Howard C. Naffziger, San Francisco, Cal.; Dr. Wm. O. Ott, Fort Worth, Texas; Dr. Max M. Peet, Ann Arbor, Michigan; Mr. Wilder Penfield, New York City; Dr. Carl W. Rand, Los Angeles, Cal.; Dr. Ernest Sachs, St. Louis, Mo.;

Dr. Byron Stookey, New York City; Dr. Alfred S. Taylor, New York City. The visitors present were Dr. H. S. Ward, Birmingham, Ala.; Dr. Chas. E. Locke, Jr., Cleveland, Ohio, and Dr. Thos. D. McKinney, Nashville, Tenn.

HEART CLINIC AT EMORY

Dr. Russell H. Oppenheimer, Dean of the School of Medicine at Emory University, announces the opening at Wesley Memorial Hospital a free heart clinic for white patients unable to pay. This clinic will be under the direction of Dr. Stewart R. Roberts. For the present, the time of the clinic is at nine o'clock on Thursday mornings.

THE DOCTOR'S WIFE

(Continued from page 205)

should be in sympathy with him and spur him on.

All of the above discussion has been leading up to this fourth point, that of having the proper attitude toward her husband's work. If she is thoroughly in sympathy with the profession, the doctor's wife will be an aid to him by co-operating in every particular. If the family has planned a trip to a distant city or resort, almost invariably, a patient will call and the trip is delayed, and many times, even abandoned. Is it worth while for the wife to get angry and set her head that she will never try again? No, the doctor's wife should remember that it is through his profession that she has means with which to live.

It is true that such experience call for endurance. But after all, does not the greatest pleasures of life come from sacrificing and giving to fellow man? Even though there are times of discouragement, the ideal doctor's wife has much for which to be thankful. In the first place, she is in a position to have social contact with the best educated and most cultured people of her community and state. But best of all, the ideal wife has the consolation of knowing that she is not only filling a woman's place in that she is helping him to give his best to humanity and to the world.

Therefore, I believe the ideal doctor's wife is one who can meet all duties, personal, social and wifely, and then be optimistic through it all. And to do this successfully, she will be forced to be optimistic at all times, realizing the importance of the place she fills.

District and County Societies

District Editors

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Long, W. V., Savannah. 2. Watt, C. H., Thomasville. 3. Greer, Chas. A., Oglethorpe. 4. Peniston, Joe B., Newnan. 5. Pitts, Jno. B., Atlanta. 6. Thompson, O. R., Macon. | <ol style="list-style-type: none"> 7. McCord, M. M., Rome. 8. Carter, D. M., Madison. 9. Bennett, J. C., Jefferson. 10. Lee, F. Lansing, Augusta. 11. W. F. Reavis, Waycross. 12. Cheek, O. H., Dublin. |
|---|---|

1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.
2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926.
3. Dougherty County, Dr. I. M. Lucas, Albany, Dec. 15, 1926.
4. Chattooga County, Dr. W. B. Hair, Summerville, Dec. 16, 1926.
5. Macon County, Dr. F. M. Mullino, Montezuma, Dec. 30, 1926.
6. Lamar County, Dr. Jno. M. Anderson, Barnesville, January 6, 1927.
7. Pike County, Dr. M. M. Head, Zebulon, January 25, 1927.
8. Rabun County, Dr. J. A. Green, Clayton, January 27, 1927.
9. Murray County, Dr. E. H. Dickie, Chatsworth, January 27, 1927.
10. Taylor County, Dr. J. C. Hind, Reynolds, January 29, 1927.
11. Jasper County, Dr. E. M. Lancaster, Shady Dale, February 9, 1927.
12. Terrell County, Dr. Logan Thomas, Dawson, February 24, 1927.
13. Butts County, Dr. J. Lee Byron, Jackson, March 30, 1927.
14. Franklin County, Dr. Stewart D. Brown, Royston, April 11, 1927.
15. Ware County, Dr. K. McCullough, Waycross, April 12, 1927.
16. Wayne County, Dr. M. N. Stow, Jesup, April 12, 1927.
17. Stephens County, Dr. C. L. Ayers, Toccoa, April 18, 1927.

MINUTES SECOND DISTRICT MEDICAL SOCIETY

EDISON, GA., MAY 8, 1927

Meeting called to order by J. A. Summerlin, President.

Invocation by Rev. L. E. Brady, Edison, Ga.

Address of Welcome was delivered by Mr. Sangleton in place of Col. A. L. Miller, Edison, Ga.

A response to this most cordial welcome was given by Dr. J. A. Redfearn in behalf of the society.

The minutes of last meeting were read by the secretary. There were no corrections or alterations and the minutes were approved as read.

SCIENTIFIC PROGRAM

The first paper on the program was entitled "Intestinal Obstruction" by Dr. Gordon Chason, Bainbridge, Ga. Dr. Chason stated that the object of the paper was to

stress the importance of early diagnosis and early operation. He also stressed the importance of avoiding the use of morphine and cathartics until diagnosis is made: The treatment is surgical. This paper was discussed by: Dr. C. K. Wall, Dr. Earnest Wahl and Dr. C. H. Watt.

The second paper was by Dr. J. W. Chambliss, Americus, Ga., entitled "Malaria." This paper was unusually interesting to the members of the society and was based on the present methods of treating this disease. The point was brought out whether or not the treatment was continued long enough. The writer showed the economic loss incurred by the mortality and morbidity due to malaria. Even those not sick in bed are inefficient and non-producing. He stressed that malaria was largely a rural problem. The writer regrets that the diagnosis of malaria so frequently is used as a cloak of ignorance. He urged physicians to use local influence to eradicate malaria. This paper brought about a discussion which was very helpful. Those taking part

in the discussion were: Dr. Jarrell, Dr. Redfearn, Dr. Jenkins, Dr. Wahl, Dr. Sharpe, Dr. Wilkinson, Dr. Rainey, Dr. Cheshire and Dr. Moore.

Dr. Beard moved that the privileges of the floor be extended to the visitors, it was seconded by Dr. Moore and unanimously carried.

The third paper on the program entitled "Headaches of Nasal Origin" was presented by Dr. B. H. Minchew, Waycross, Ga. This paper was illustrated by drawings and dealt with headaches of the nasal origin, acute, sub-acute, and chronic types. The speaker dealt with the diagnosis of each case and also told the treatment to apply in each case. The paper was a most interesting one and enjoyed by all. The paper was discussed by Dr. Moore of Thomasville and Dr. C. C. Harrold of Macon.

The following committee was appointed to determine the next place of meeting and appoint men to read papers at the next meeting. Committee: Dr. Tracey, Dr. Belcher, and Dr. Redfearn.

Adjournment for lunch. A delightful luncheon was served by the ladies on the lawn adjoining the school house where the meeting was held. Everyone present testified to the excellence and abundance of the food present.

The afternoon session opened with the following committee report:

COMMITTEE REPORT

Next place of meeting, Albany, Ga.

Papers to be read at that time by the following men:

Medicine, W. W. Jarrell, Thomasville.

Surgery, A. H. Hilsman, Albany.

Obstetrics, Dr. Wilkinson, Bainbridge.

Pediatrics, Dr. J. L. Brown, Camilla.

E. E. N. & T., A. S. Bacon, Albany.

The following officers were elected to serve for the coming year:

OFFICERS

President: C. J. Jenkins, Edison, Ga.

Vice-President: J. A. Redfearn, Albany, Ga.

Secretary: C. H. Watt, Thomasville, Ga.

The fourth paper on the program, by Dr. C. C. Harrold, Macon, was "Report of a Case of Fracture of the Upper End of the Humerus, Treated by Abduction with a Splint

Made from Fishing Poles." This concerned a report of a case of a man living far out in the backwoods who had received a fracture of the humerus. Dr. Harrold had been called there to treat him; having no splints he devised an ingenious splint which he made from fishing poles. Dr. Harrold showed photographs of the patient wearing the splints and then the final result. He also had the splint to demonstrate the method of applying.

The next two papers on the program were not given. Dr. Jarrell's paper was postponed until the next meeting for lack of time. Dr. Peterson was not present.

Dr. Rainey then requested that the Second District Medical Society go on record as approving the establishing of a branch state laboratory in southwest Georgia located in a city best situated to serve the thirty-four counties of southwest Georgia. That in connection with this laboratory there be:

1. A malarial engineer doing malaria control.

2. A sanitary engineer doing sanitary work in rural and urban districts.

3. A nurse working with midwives.

That a copy of this resolution be sent to every legislator in the thirty-four counties of southwest Georgia before the legislature meets in June. The motion to this effect was made by C. K. Sharpe and seconded by Dr. Jenkins. It was unanimously carried.

Adjournment.

Signed: CHAS. H. WATT, M.D.,
Secretary.

FIFTH DISTRICT MEDICAL SOCIETY

MEETING OF THE FIFTH DISTRICT MEDICAL SOCIETY
HELD AT THE COURTHOUSE, DECATUR, GA.,
MAY 6, 1927

The meeting was called to order by the President, Dr. D. Housworth of Douglasville, Ga.

Dr. Wiley S. Ansley of Decatur, delivered the Address of Welcome from the DeKalb County Medical Society.

Dr. Oliver of the State College of Agriculture made a brief talk to the Society on the importance of encouraging the milk industry and consumption in the State of Georgia.

The following papers were read:

No. 1. "Measles Prophylaxis with Parents Blood Serum," by Dr. Lee Bivings, Atlanta.

Discussed by Drs. Yampolsky, Emery, Hodgson.

No. 2. "The Treatment of Uterine Cancer," by Dr. F. M. Johnson of the Steiner Clinic, Atlanta.

Discussed by Drs. Denton, Clifton, Benson, Campbell.

No. 3. "The Treatment of Syphilis," by Dr. W. B. Emery, Atlanta.

Discussed by Drs. Campbell, Yampolsky, Barber, C. W. Roberts, Clifton.

The following new officers were elected for the ensuing year:

President, Dr. Wiley S. Ansley, Decatur.

Vice-President, Dr. W. E. Barber, Atlanta.

Secretary, Dr. R. T. Camp, Jr., Fairburn.

Dr. E. C. Thrash remains Counsellor with Dr. W. A. Selman, Vice-Counsellor.

Respectfully submitted,

JNO. B. FITTS, M.D.,

Retiring Secretary.

MEMBERS REGISTERING AT ANNUAL MEETING IN ATHENS

MAY 11, 12, 13, 1927

A

Aaron, I. E., Lyons
Abercrombie, T. F., Atlanta
Adair, Robin, Atlanta
Adams, F. L., Elberton
Adkins, W. N., Atlanta
Alexander, G. T., Atlanta
Allen, H. D., Jr., Milledgeville
Allen, L. C., Hoschton
Amis, Frank J., Hogansville
Anderson, E. B., Americus
Anderson, J. M., Barnesville
Anderson, J. M., Columbus
Anderson, W. W., Atlanta
Ansley, W. S., Decatur
Applewhite, J. D., Macon
Atkins, Frank M., Atlanta
Atwood, G. E., Waycross
Aven, C. C., Atlanta
Ayers, A. J., Atlanta
Ayers, C. L., Toocoo

B

Bachman, Geo., Atlanta
Bacon, A. S., Albany
Baggett, L. G., Atlanta
Bailey, D. V., Elberton
Ballenger, W. L., Atlanta
Banister, H. G., Ila
Barber, W. E., Atlanta
Barfield, H. M., Atlanta
Barrow, Craig, Savannah
Bashinski, Benj., Macon
Bazemore, Wallace, Macon
Bennett, J. C., Jefferson
Bennett, V. H., Gay
Benson, M. T., Atlanta
Bernard, T. G., Augusta
Birdsong, H. W., Athens
Bishop, E. L., Atlanta
Blackman, W. W., Atlanta
Brawner, Jas. N., Atlanta
Boland, Frank K., Atlanta
Boland, S. A., Thomson
Bowdoin, W. H., Statham
Bridges, R. R., Leary

Brooke, Geo. C., Canton
Brown, J. A., Shady Dale
Brown, Stewart D., Royston
Buff, J. H., Atlanta
Bunce, Allen H., Atlanta
Bullard, T. P., Palmetto
Burdashaw, W. J., Augusta
Burgess, T. S., Atlanta
Burns, J. K., Jr., Gainesville
Burns, J. K., Sr., Clarksville
Busey, T. J., Fayetteville

C

Cabaniss, W. H., Athens
Caldwell, A. F., Atlanta
Camp, R. T., Fairburn
Camp, W. R., Fairburn
Campbell, J. L., Atlanta
Canning, G. T., Athens
Carter, Dan M., Madison
Carter, H. G., Atlanta
Castelow, Geo. O., Maysville
Chandler, B. B., Athens
Chaney, R. H., Augusta
Champion, W. L., Atlanta
Chandler, W. V., Baldwin
Charlton, T. J., Savannah
Chason, Gordon, Bainbridge
Chaudron, P. O., Cedartown
Cheek, Pratt, Gainesville
Clark, Jas. J., Atlanta
Clark, M. A., Macon
Clark, W. H., LaGrange
Clay, Grady E., Atlanta
Clodfelter, T. C., Tignall
Coile, F. W., Winterville
Coker, Grady N., Canton
Coleman, A. S. M., Douglas
Coleman, E. T., Graymont
Crane, Chas. W., Augusta
Crow, H. E., Talmo
Crow, L. H., Athens

D

Damren, F. L., Augusta
Dancy, Wm. R., Savannah

Daniel, E. L., Atlanta
Daniel, Jno. W., Savannah
Davis, Bradley B., Gainesville
Davis, E. C., Atlanta
Deadwyler, M. P., Maysville
Dean, J. G., Dawson
Decker, C. J., Athens
Dees, J. H., Alston
Derrick, H. C., Oglethorpe
Dillard, Jas. B., Davisboro
Doster, H. W., Rocky Ford
Downman, Chas. E., Atlanta
Downey, J. H., Gainesville
Drane, Robert, Savannah

E

Earl, H. L., Jewell
Eaton, Paul, Augusta
Ebbert, C. A. P., Grantville
Echols, Geo. L., Milledgeville
Elder, Eugene B., Atlanta
Elrod, J. O., Forsyth
Ellis, L. M., Washington
Emery, W. B., Atlanta
Equeen, Murdock, Atlanta
Evans, J. R., Stone Mountain
Ezell, H. E., Oliver

F

Fambrough, W. M., Bostwick
Fischer, L. C., Atlanta
Floyd, Earl, Atlanta
Floyd, J. T., Atlanta
Floyd, W. B., Rome
Folks, W. M., Waycross
Fort, A. G., Atlanta
Fort, M. A., Bainbridge
Fowler, A. H., Milledgeville
Franklin, R. C., Swainsboro
Franklin, V. E., Graymont
Freeman, Ralph, Hoschton
Fountain, Jas. A., Macon
Fuller, Geo. W., Atlanta
Fnullilove, H. M., Athens

G

Garner, J. R., Atlanta
 Garrard, J. I., Milledgeville
 Garrison, W. H., Clarkesville
 Gay, Bolling, Atlanta
 Gerdine, Linton, Athens
 Gheesling, Goodwin, Greensboro
 Gilliam, O. D., Columbus
 Gholston, W. D., Danielsville
 Goodwyn, H. J., Carrollton
 Goodwyn, T. P., Atlanta
 Goldsmith, L. H., Atlanta
 Goss, R. M., Athens
 Gray, J. D., Augusta
 Green, A. J., Union City
 Green, Wm. L., Crawford
 Green, Wm. L., Jr., Lexington
 Grove, L. W., Atlanta
 Guthrie, Nim, Norcross

H

Hafford, W. C., Waycross
 Hailey, Howard, Atlanta
 Hall, Jas. K., Lyons
 Hampton, H. H., Colbert
 Hanrick, H. P., Buford
 Hancock, Thos. H., Atlanta
 Harden, O. N., Cornelia
 Harbin, R. M., Rome
 Hardman, L. G., Commerce
 Harper, G. T., Dewy Rose
 Harrison, M. T., Atlanta
 Harriss, H. T., Washington
 Harrold, C. C., Macon
 Harrold, Thos., Macon
 Harvard, V. O., Arabi
 Helton, B. L., Sandersville
 Hilsman, A. H., Albany
 Hinton, W. T., Dacula
 Hodges, Chas. A., Dublin
 Hodgson, F. G., Atlanta
 Holcombe, T. L., Union Point
 Holliday, A. C., Athens
 Holliday, J. C., Athens
 Holliday, Paul L., Athens
 Holmes, Champ, Atlanta
 Holmes, L. P., Augusta
 Howard, Lee, Savannah
 Horne, G. T., Augusta
 Hubbard, F. M., Commerce
 Huguley, G. P., Atlanta
 Hunnicutt, J. H., Jr., Athens

I

Irvin, I. W., Albany
 Isbell, J. E. D., Toccoa

J

Jackson, Zach W., Atlanta
 Jenkins, J. C., Hartwell
 Jernigan, C. S., Sparta

Johnson, A. S., Elberton
 Jones, A. B., Tyrone
 Jones, B. B., Metter
 Jones, Wm. T., Atlanta
 Jordon, J. R., Ellaville
 Jordon, W. P., Columbus

K

Kelley, D. C., Lawrenceville
 Kenimen, E. H., Bishop
 Kennedy, W. C., Talmo
 Kennedy, W. D., Metter
 Kirkland, S. A., Atlanta

L

Lake, W. F., Atlanta
 Lamb, R. B., Demorest
 Landham, J. W., Atlanta
 Lancaster, E. M., Shady Dale
 Lanier, L. I., Rocky Ford
 Leadingham, R. S., Atlanta
 Lee, J. L., Pinehurst
 Lewis, S. J., Augusta
 Levy, M. S., Augusta
 Loden, G. L., Colbert
 Lokey, H. M., Atlanta
 Lord, C. B., Jefferson
 Lowry, T., Cartersville
 Lyle, W. C., Atlanta

M

Maddox, R. C., Rome
 Mathews, W. L., Winder
 Matthews, M. F., Athens
 Metts, J. C., Augusta
 Michel, H. M., Augusta
 Middlebrooks, C. O., Athens
 Miller, G. T., Macon
 Miller, R. L., Waynesboro
 Miller, W. A., Arabi
 Mixson, J. F., Valdosta
 Mizell, Geo. C., Atlanta
 Mobley, Walter E., Macon
 Mooney, A. J., Statesboro
 Moore, G. Y., Cuthbert
 Moore, M. P., Carlton
 Moore, W. P., Carlton
 Morgan, D. E., LaGrange
 Morrison, A. A., Savannah
 Mulherin, W. A., Augusta
 Murphey, Eugene E., Augusta
 Murray, Geo. M., Atlanta
 Myers, Wm. H., Savannah

Mc

McAliley, R. Geo., Atlanta
 McArthur, Thos. J., Cordele
 McCullough, K., Waycross
 McCurry, W. E., Hartwell
 McDonald, E. M., Jefferson
 McDougall, Calhoun, Atlanta

McDougall, Wm. L., Atlanta
 McDuffie, J. H., Jr., Columbus
 McGarity, J. A., Atlanta
 McGeary, W. C., Madison
 McGohee, R. C., Warrenton
 McKinney, J. C., Athens
 McRae, Floyd W., Atlanta

N

Nash, Thos. C., Philomath
 Nicolson, W. P., Jr., Atlanta
 Nicolson, W. P., Sr., Atlanta
 Niles, Geo. M., Atlanta
 Nolan, C. T., Marietta

O

Oppenheimer, R. H., Emory Univer
 Osborne, V. W., Decatur
 Overby, N., Sandersville

P

Page, Hugh N., Augusta
 Palmer, J. W., Ailey
 Parry, L. D., Thomasville
 Peacock, E. S., Harrison
 Pendergrass, Robt. C., Atlanta
 Perkins, M. E., Millen
 Perkinson, W. H., Marietta
 Person, W. E., Atlanta
 Pettit, J. T., Canton
 Pittard, L. Y., Monticello
 Poole, E. T., Lavonia
 Porter, J. L., Rutledge
 Pruitt, M. C. Atlanta

Q

Quattlebaum, Julian K., Savannah
 Quillian, G. W., Atlanta

R

Rawlings, F. B., Sandersville
 Ray, A. T., Sharon
 Rayle, Albert A., Athens
 Reavis, W. F., Waycross
 Redfearn, J. A., Albany
 Reese, D. S., Carrollton
 Reynolds, H. I., Athens
 Rhodes, Jno. A., Crawfordville
 Rice, Keith C., Atlanta
 Richardson, C. H., Jr., Macon
 Richardson, R. W., Macon
 Roberts, C. W., Atlanta
 Roberts, M. Hines, Atlanta
 Roberts, O. W., Carrollton
 Roberts, Stewart R., Atlanta
 Rogers, A. A., Commerce
 Rogers, R. L., Gainesville
 Rouglin, L. C., Atlanta
 Ross, S. T., Winder
 Rozar, A. R., Macon
 Rushin, C. E., Atlanta

S

Sage, Dan Y., Atlanta
 Selman, W. A., Atlanta
 Slack, Henry R., LaGrange
 Shallenberger, W. F., Atlanta
 Shankle, O. E., Commerce
 Shanks, E. D., Atlanta
 Sharp, C. K., Arlington
 Smith, A. C., Elberton
 Smith, E. C., Donalsonville
 Smith, Geo. B., Rome
 Smith, S. S., Athens
 Smith, W. Carter, Atlanta
 Stapler, Jos. A., Greensboro
 Stockard, Cecil, Atlanta
 Swanson, Cosby, Atlanta
 Swint, R. C., Milledgeville
 Sydenstricker, V. P., Augusta

T

Teasley, B. C., Hartwell
 Temples, P. M., Statesboro
 Thompson, C., Millen
 Thompson, D. N., Elberton
 Thompson, T. C., Vidalia
 Thrash, E. C., Atlanta
 Thrash, J. A., Columbus

Titshaw, H. S., Gainesville
 Toepel, Theo., Atlanta
 Touchton, Geo. L., Savannah
 Train, Jno. K., Savannah
 Tramel, J. R., Statesboro
 Travis, W. D., Covington
 Traylor, Geo. A., Augusta

U

Upchurch, W. A., Atlanta
 Upshaw, Harry L., Social Circle

V

Veale, E. O., Arnoldsville
 Verner, J. C., Commerce

W

Waits, Chas. E., Atlanta
 Walker, C. H., Macon
 Walker, T. W., Jr., Macon
 Warren, W. C., Jr., Atlanta
 Waters, W. C., Atlanta
 Weaver, J. Calvin, Atlanta
 Weaver, O. H., Macon
 Weeks, H. C., Atlanta
 Westbrook, R. J., Ila
 Wheelchel, A. J., Cordele

Wheelchel, C. C., Comer
 Wheelchel, Cleveland D., Gainesville
 Wheelchel, G. O., Athens
 Whitley, L. L., Crawford
 Williams, A. D., Savannah
 Williams, T. E., Americus
 Winchester, M. E., Atlanta
 Wise, B. T., Plains
 Wood, R. Hugh, Atlanta

Y

Yampolsky, Joseph, Atlanta
 Youmans, H. D., Lyons
 Young, W. W., Atlanta

VISITORS

Barker, Nat, Dresden, Maine
 Birdsong, I. W., Newborn
 Carden, S. G., Centre, Ala.
 Hines, E. A., Seneca, S. C.
 Joiner, Hartwell, Emory University
 Kanner, D., Macon
 Maret, W. C., Seneca, S. C.
 Mashburne, G. F., Hastings, N. Y.
 McMakin, T. A., Atlanta
 Miller, J. O., Macon
 Pratt, J. C., Philadelphia, Pa.

COMMERCIAL EXHIBITORS AND REPRESENTATIVES

Aeme International X-Ray Co., Jacksonville, Fla.
 Schoeck, F., Atlanta
 Blakiston, P., Son & Co., Philadelphia
 Pridgen, S. J., Atlanta
 Cameron Surgical Supply Co., Chicago
 Minnich, G. M., Chicago
 Denver Chemical Mfg. Co., New York
 Kovalle, W. H., New York City
 DeVilbiss Co., Toledo, Ohio
 Johnson, A. S., Atlanta
 Estes Surgical Supply Co., Atlanta
 Harrison, B. J., Atlanta
 Smith, H. J., Atlanta
 Hanovia Chemical & Mfg. Co., Newark, N. J.
 Montgomery, J. K., Atlanta
 Max Woche & Son Co., Cincinnati, O.
 Perryman, Ben, Atlanta
 Mead Johnson & Co., Evansville, Ind.
 Gilmore, J. H., Atlanta
 National Drug Co., Philadelphia
 Andrews, E. D., Athens
 Perryman-Burson Co., Atlanta
 Burson, J. C., Atlanta

Brown, W. L., Atlanta
 Saunders, W. B., Co., Philadelphia
 Neely, F. B., Montgomery, Ala.
 Victor X-Ray Corporation, Chicago
 Eason, T. H., Atlanta
 Lang, E. A., Atlanta

BOOKS RECEIVED

A Text-Book of Medicine. By 130 American Authors. Edited by Russell L. Cecil, M.D., Assistant Professor of Clinical Medicine, Cornell University, Medical School, New York. Octavo of 1500 pages, illustrated. Price, Cloth, \$9.00 Net. W. B. Saunders Co., 1927. Philadelphia and London.

Should We Be Vaccinated? A survey of the controversy in its historical and scientific aspects by Bernard J. Stern, Instructor of Sociology, Columbia University. Contains 146 pages. Publishers: Harper and Brothers, 49 East 33rd Street, New York.

The International Medical Annual, a Year Book of Treatment and Practitioner's Index. Contains 560 pages. Price, cloth, net \$6.00. Publishers: William Wood and Company, 51 Fifth Avenue, New York City.

Georgia State Association of Graduate Nurses

OFFICERS

President.....Miss Lucy M. Hall, R.N. 522 East 40th St., Savannah, Ga.	2nd Vice-President.....Miss Mae E. Burges, R.N. 1108 East Henry St., Savannah, Ga.
1st Vice-President.....Miss Margaret E. Dorn, R.N. 1117 Telfair St., Augusta, Ga.	Secretary.....Mrs. Alma E. Albrecht, R.N. Georgia Infirmary, Savannah, Ga.
Treasurer.....Miss Jane VanDeVrede, R.N. 105 Forrest Ave., N.E., Atlanta, Ga.	

"Nursing is carrying the responsibility for adapting and co-ordinating the conditions immediately surrounding a patient so as to re-establish and protect his health." Martha Russell, R.N.

STATE BOARD EXAMINATIONS

Examinations were recently held by the State Board of Examiners of Nurses for Georgia.

One hundred and forty-three nurses applied for registration, four of these for reciprocity certificates which were granted. Two applicants were rejected as ineligible. One hundred and thirty-seven were admitted to examinations but twenty failed to appear for same. Of the one hundred and seventeen who were examined ninety-nine passed the examinations and eighteen failed.

Those who failed came from the following schools: Atlanta Hospital, Brunswick City Hospital, Davis & Fischer Sanatorium, Griffin Hospital, Harbin Hospital, Macon City Hospital, McCall Hospital, Piedmont Hospital, Savannah Hospital, St. Joseph's Hospital, Savannah; Vidalia Hospital, Municipal Training School, Colored. There were examinees from the thirty-three institutions.

Of the one hundred and forty-three nurses who applied fifty-eight were high school graduates, four of whom had college work in addition. One hundred and twenty had had two years of high school. There were a number of nurses re-examined whose educational qualifications did not meet the present standard and a few where equivalents had to be determined. The Board will do everything possible to assist students in clearing the necessary credits to enter, but Superintendents of Nurses must insist on securing evidence from the school where the student attended that two years of high school or the equivalent of eight Carnegie units has been secured. The list of successful applicants follows:

Nurses Who Were Registered under the Laws of Georgia

MAY 5, 1927

Atherton, Miss Lucy, Atlanta, Ga.
Ball, Miss Gladys Marie, Ocilla, Ga.
Baggett, Miss Margaret Lula, Andalusia, Ala.
Bentley, Miss Arthur W., Quitman, Ga.
Bishop, Miss Martha, Marietta, Ga.
Bradley, Miss Mary M., Savannah, Ga.
Bright, Miss Mary L., Atlanta, Ga.
Burch, Miss Willie, Atlanta, Ga.
Burke, Miss Mae Frances, Savannah, Ga.
Butler, Miss Alice Julia, Macon, Ga.
Burdette, Miss Lois, Atlanta, Ga.
Carithers, Miss Georgia L., Spartanburg, S.C.
Carpenter, Miss Elizabeth R., Knoxville, Tenn.
Carroll, Miss Emily W., Augusta, Ga.
Christian, Miss Floye J., Atlanta, Ga.
Clark, Miss Katherine L., Albany, Ga.
Clark, Miss Ria Holland, Darien, Ga.
Cooper, Mrs. E. P., Tifton, Ga.
Culpepper, Miss Eunice S., Lumber City, Ga.
Clay, Miss Janie A., Griffin, Ga.
Daniels, Miss Mary Lee, Americus, Ga.
Day, Miss Hattie E., Augusta, Ga.
Deal, Miss Eunice G., Atlanta, Ga.
DeLoache, Miss Avis, Savannah, Ga.
Dominey, Miss Susie K., Savannah, Ga.
Duke, Mrs. Nell, Atlanta, Ga.
Dumas, Miss Rose B., Forsyth, Ga.
Edmondson, Mrs. Roberta L., Savannah, Ga.
Edwards, Miss Alice V., Macon, Ga.
Ellington, Miss Louise A., Augusta, Ga.

Finch, Mrs. Kenneth, Florence, S. C.

Guy, Miss Helen, Atlanta, Ga.

Gordan, Miss Furmiss, Miami, Fla.

Grubbs, Miss Mary Anne, Griffin, Ga.

Hamilton, Miss Loutitia, Atlanta, Ga.

Haney, Miss Celia, Nealsville, Ga.

Harris, Miss DeAlva, Savannah, Ga.

Harrison, Miss Margaret, Winterville, Ga.

Harvell, Mrs. Phena W., Atlanta, Ga.

Harvey, Miss Mary Jewell, Atlanta, Ga.

Higgins, Miss Veronica, Atlanta, Ga.

Holt, Miss Birdie B., Vienna, Ga.

Holland, Miss Minnie R., Hamilton, Ga.

Jackson, Miss Dorothy I., Macon, Ga.

King, Miss Edna E., Rome, Ga.

King, Miss Florida, Atlanta, Ga.

Koon, Miss Verda V., Atlanta, Ga.

Lee, Miss Mary E., Atlanta, Ga.

Lee, Mrs. Walter, Savannah, Ga.

Lewis, Miss Elizabeth, Eufaula, Ala.

Lindsey, Miss Bonnie N., Valdosta, Ga.

Logan, Miss Will Nell, Atlanta, Ga.

Lyon, Miss Sara Emma, Augusta, Ga.

Mathews, Miss Londie M., Atlanta, Ga.

McEwan, Miss Effie B., Atlanta, Ga.

McDonald, Miss Lucinda, Valdosta, Ga.

Minter, Miss Minnie L., Macon, Ga.

Mitchell, Miss Jerusha M., Decatur, Ga.

Moring, Mrs. Ruth, Atlanta, Ga.

Moore, Miss Anne Martha, Savannah, Ga.

Morton, Miss Ruby E., Atlanta, Ga.

Myers, Miss Naomi, Athens, Ga.

Newberry, Miss Gladys C., Atlanta, Ga.

Page, Miss Evelyn P., Hartwell, Ga.

Payne, Miss Alma L., Athens, Ga.

Prescott, Miss Georgia, Macon, Ga.

Rivers, Miss Martha Grace, Atlanta, Ga.

Richards, Miss Thelma C., Dalton, Ga.

Reeves, Miss Pauline Leva, Cedartown, Ga.

Rowland, Miss Sallie Lou, Valdosta, Ga.

Russell, Miss Frances E., Dalton, Ga.

Russell, Miss Isabel B., Dalton, Ga.

Seroggins, Miss Grace, Thomaston, Ga.

Sherrouse, Mrs. Lois R., Savannah, Ga.

Sherman, Miss Harriett M., Augusta, Ga.

Smith, Miss Margaret, Lindale, Ga.

Snow, Mrs. Quittie M., Savannah, Ga.

Steadman, Miss Grace, Rome, Ga.

Stockton, Miss Frances, Atlanta, Ga.

Sowell, Miss Leila V., Savannah, Ga.

Swick, Miss Opal F., Atlanta, Ga.

Taylor, Miss Lois, Atlanta, Ga.

Turner, Miss Minnie L., Atlanta, Ga.

Thomason, Miss Bessie L., Monticello, Ga.

Trapp, Miss Georgia I., Atlanta, Ga.

Vickers, Miss Leola, Douglas, Ga.

Vickers, Miss Willie Mae, Douglas, Ga.

White, Miss Bessie Mae, Macon, Ga.

White, Miss Margaret B., Atlanta, Ga.

Zeigler, Miss Elsie D., Savannah, Ga.

COLORED NURSES

Crombie, Esther A., Atlanta, Ga.

Hassler, Jemima M., Atlanta, Ga.

Johnson, Savannah, Atlanta, Ga.

Mims, Cora L., Macon, Ga.

Roberts, Nellie B., Decatur, Ga.

Rogers, Roberta, Savannah, Ga.

Williamson, Dorothy, Zion, Ill.

RECIPROCITY REGISTRATIONS

Beightol, Mrs. Bessie, Rec. with Iowa, Atlanta, Ga.

Boyle, Genevieve M., Rec. with Pennsylvania, Atlanta, Ga.

Deariso, Mrs. Mary B., Rec. with Texas, Albany, Ga.

Hill, Miss Agatha M., Rec. with Michigan, Alto, Ga.

News Items

Dr. T. C. Thompson, visited Nursing Headquarters to perfect plans for an affiliation for the students from the Training School for the Vidalia Hospital. An addition to the institution is in process of construction and improved facilities for the nursing school are being provided.

Miss Margaret Crisson, Superintendent of Nurses, Riverside Hospital, Bainbridge, visited Nursing Headquarters in the interest of securing approval of the nursing school of the Riverside Hospital. An official visit will be made in the near future.

Dr. A. R. Rozar of the Oglethorpe Private Infirmary of Macon, visited the Nursing Headquarters in the interest of the school of nursing connected with the institution. An addition to the hospital is in process of construction and increased advantages to the nurses will result.

There is every evidence that the Schools of Nursing in Georgia are progressing in many ways. The Secretary of the Board of Examiners is eager to assist in the arrangements for instruction of nurses where desired.

Summer Sessions

Nurses are going to school in greater number each year. In addition to the hundreds of nurses working for degrees in the regular five-year courses of which there are at least two in the South, Vanderbilt University and University of Virginia, the summer sessions are giving opportunities to those who are already in the field as public health nurses, administrators, instructors and those who desire to keep abreast of advancing knowledge and technique.

In some of the European countries the nurse is obliged to return every three to five years for post-graduate training.

Surgical and medical clinics have for years been the goal of the average doctor. The nurses are beginning to fall in line.

There are many courses open to nurses who desire to add to their educational and cultural equipment.

Peabody College, Nashville, Tenn., carries a course in two divisions of six weeks which can apply on the regular course in credits.

California, Massachusetts, Michigan, Minnesota, New York, Pennsylvania, Washington, Colorado, Florida and now Georgia will offer intellectual refreshment during the summer sessions.

At Emory University, Atlanta, Ga., a very creditable six-weeks' work in advanced nursing procedures and knowledge in the newer developments of medicine or in public health nursing is offered.

The school has been fortunate in getting Miss Maude Parsons, professor at Yale University School of Nursing who conducted the course in Public Health Nursing in the Uni-

versity of Washington and who is considered very highly by nurse educators, to teach the Principles of Public Health Nursing.

A series of thirty lectures will be given in groups of five on various phases of Public Health Nursing and Health Problems and Projects as follows:

June 15th—"The History of Public Health Movements," Dr. T. F. Abercrombie, State Commissioner of Health, Georgia.

June 16th—"The City as a Factor in Public Health Movements," Dr. J. P. Kennedy, City Health Officer, Atlanta, Ga.

June 17th—"The Social Interpretation of Public Health as a Movement," J. P. Faulkner, State Director Anti-Tuberculosis Society.

June 18th—"Public Health Agencies," Miss Jane VanDeVrede, Atlanta, Ga.

June 21st-25th—"Tuberculosis and Public Health," Dr. J. L. McBrayer, National Tuberculosis Association.

June 28th-July 2nd—"Social Hygiene," Miss Simpson, U. S. P. H. S.

July 5th—"Cancer and Public Health," Dr. J. L. Campbell.

July 5th-7—"Health Work in the Schools," Mrs. Wooten, Milledgeville, Ga.

July 8th—"Health Work in Industry," Miss Laura Smith, New York, N. Y.

July 9th—"Publicity in Health Work," Dr. B. W. Cary, Athens, Ga.

July 11th-13th—"Mental Hygiene and Public Health," Dr. G. K. Pratt, New York.

July 13th—"The Nurse," Miss Sophie Nelson, Boston, Mass.

July 14th-15th—Conference on Public Health.

These lectures are designed for two groups of people.

(1) Nurses and other workers who are equipping themselves for service in the general field covered by them, and

(2) The layman who needs to be informed as to the meanings and methods involved. They are not technical, but informative, serving primarily to develop points of view, attitudes and insights.

Student nurses of Atlanta and any health worker will be admitted. No tuition is charged for these lectures

CHATTAHOOCHEE VALLEY MEDICAL AND SURGICAL ASSOCIATION

The Chattahoochee Valley Medical and Surgical Association will convene its annual session at Warm Springs, Georgia, July 12th and 13th, 1927. Doctors in good standing in their County and State Societies are eligible for membership in this Association and I am instructed by its governing council to invite the Physicians of Georgia to attend the approaching meeting and to take part in its exercises.

A splendid scientific program made up of some forty papers dealing with many phases of medical and surgical practice, has been prepared. The meetings of the Chattahoochee Valley Medical and Surgical Association are unique in that the presentation of scientific papers and their discussion is entirely informal. From year to year those who have attended these meetings have expressed their warm approval of its democratic nature. Free and full discussion result in clarifying the medical problems presented and in making the time spent in Warm Springs a most profitable investment. The officers of this Association have always laid emphasis upon good fellowship believing that understanding among physicians and the destruction of petty jealousies which tend to cripple the unified effort of the medical profession in its scientific advancement may by intimate acquaintance be largely overcome.

In pursuit of this principle doctors attending the approaching meeting will receive a warm welcome and will find in Warm Springs a large gathering of their fellow-men bent upon spending two pleasant days in the renewal of old acquaintance and the making of new ones as well as seasoning the little vacation with the spice of a splendidly arranged and presented scientific program. To those who have attended before one need only announce the date of the meeting, July 12-13. To our uninitiated friends we bid you join us with the promise that you will have no regrets on the "morning after".

C. W. ROBERTS, Chairman,
Program Committee.

June 7, 1927.

To the Editor:

No doubt you will be interested in knowing that Georgia can boast of having the first city in the world that has had a 100% dental correction program completed in the white public schools. A week ago the last of the Athens schools went "over the top."

At the beginning of the year the Dentists, the Department of Education, and the Department of Health held a conference to discuss this plan in general. The School Board voted a holiday to the school that secured 100% correction.

A card stating that the child needed no dental work or that all necessary dental work had been done, was printed and given to each pupil for the signature of his dentist.

Talks were made and literature distributed by the health workers in the schools, clubs and churches. Each teacher wrote on the board the name of each child as he brought back his dental certificate. When 90% of the children in a school were on the corrected list and a holiday was so nearly in sight the other 10% had to fall in line for self-protection. The dentist, of course, did much charity work or work below their regular prices.

Any place where the Dentists, the Department of Education, and the Department of Health unite, this campaign can be easily put across.

Yours truly,
B. B. BAGBY, M.D.,
Health Commissioner.

Athens, May 16, 1927

To the Editor:

We should be glad to supply a copy of the "Preliminary Report of the Commission on Medical Education" to any of your readers who may be interested in the general questions of medical education and practice? We should be glad to supply these copies without charge, and anyone desiring a copy of the report can obtain it by addressing

COMMISSION ON MEDICAL EDUCATION
215 WHITNEY AVENUE
NEW HAVEN, CONNECTICUT

To the Editor:

We are anxious to get in communication with members of the A. O. A. National Honorary Medical Fraternity, who reside in Georgia as there is a movement on foot to get a chapter for Emory. Ask them to get in touch with me and oblige.

Very truly,
LISLE B. ROBINSON, M.D.

May 20, 1927
26 Linden Ave., N. E., Atlanta.

To the Editor:

We wish to announce that the following names have been added to the Faculty of the New York Polyclinic Medical School and Hospital:

Frederic W. Bancroft, M.D., Professor of Surgery.
Harold E. Santee, M.D., Professor of Surgery.
Charlton Wallace, M.D., Professor of Orthopedic Surgery.

Percy H. Williams, M.D., Professor of Gynecology.
John H. Carroll, M.D., Professor of Internal Medicine.

Very truly yours,
J. A. KEARNEY, M.D.,
Executive Officer.

April 19, 1927
New York City

To the Editor:

We are in receipt of the following letter:

"For the past few years we have supplied your State Health Department with our Salvarsans at prices which are below the actual cost of material and packing. We extremely regret that we can no longer maintain these prices and that a slight upward revision is essential."

This being true we are obliged to advance our price to you, and from this date the following will be the State Board of Health prices until further notice:

NEOARSPHENAMINE	
0.45 gram	\$0.24
0.6 gram .....	.25
0.75 gram .....	.30
0.9 gram .....	.35
4.5 gram	1.00
SULPHARSPHENAMINE	
0.45 gram	\$0.24
0.6 gram .....	.25

All packed in boxes of ten ampoules—no less sold, though we will assort the sizes if desired.

Keidel tubes are \$1.50 per dozen, packed in half dozen units; no less than six sold.

All shipments by parcel post, C. O. D.

Yours very truly,

JOE P. BOWDOIN, M.D.,
Georgia State Board of Health.

4 Capitol Sq., Atlanta

April 25, 1927

NEWS ITEMS

The well known surgical supply house of A. S. Aloe Company in St. Louis has been crowded out of their contracted quarters at 513 Olive Street (the optical store remains there), and are now located in the new Aloe Surgical Building at 1819-23 Olive Street—only three blocks from the Union Station. The removal was necessitated by lack of downtown parking facilities and the growth of their surgical business which required larger and better quarters. Visiting physicians should take note of the new location near the railway center.

French Lick Springs Hotel, Indiana, is now in mid-season, with horseback riding, golf, and other recreations vying with each other in popularity. Many visitors go to French Lick for the mineral waters that abound there in the region so well known as the "Lost River Valley." It is a picturesque as well as an historical section about which books have been written. But the healthful climate and the mineral waters continue to be the chief attraction for thousands of visitors each year. The beautiful gardens and surroundings of French Lick Springs Hotel bespeak the peaceful and healthful atmosphere which prevails there. The percentage of illness is considerably less there than in other cities, towns and villages of Indiana. Still the authorities provide for those who may be

sick. Dr. A. H. Harold, an experienced physician of Indianapolis, has recently accepted the position as Medical Director at French Lick Springs Hotel."

Dr. Frank K. Boland, Atlanta, was elected president of the University of Georgia Alumni Society.

Dr. D. H. Monroe, Emerson, Commissioner of Health, Bartow County, conducted free clinics in April and May to inoculate school children against typhoid.

The Richmond County Medical Society held its regular monthly meeting in the Hotel Richmond, Augusta, April 21st.

The Vidalia Hospital was host to the Leon Moyer Memorial Association on April 23

Dr. Hugo Robinson, Albany, Dougherty County Health Officer, announces that all citizens of Dougherty County will be furnished free anti-typhoid serum and toxin-antitoxin.

Dr. S. A. Kirkland announces the opening of offices in the Doctors Building at 436 Peachtree Street, Atlanta.

We are pleased to call the attention of all members of the Association to the ad appearing in this issue of the Journal from A. S. Aloe Company, 1819-23 Olive St., St. Louis, Mo. Their catalog will be mailed to any one on request.

Dr. L. J. Pharr, formerly of Newborn, announces the removal of his offices and residence to Conyers.

Dr. Claude Griffin, formerly of Carrollton, announces the removal of his offices to the Medical Arts Building, Atlanta.

Dr. Geo. E. Atwood, Waycross, health commissioner for Ware County, announces that 98% of the white school children have been vaccinated against diphtheria and 95% against smallpox.

\$2,500,000 has been put into hospital construction for the Methodist Episcopal Church, South, during the past year, according to announcement of Dr. C. C. Jarrell, Atlanta.

Dr. B. V. Elmore, Rome, Floyd County Health Commissioner, went to the Mississippi flood area under the auspices of the American Red Cross for relief work.

Laurens County Medical Society will be host to the Twelfth District Medical Society at its semi-annual meeting in July.

Dr. J. D. Applewhite, Macon, Bibb County Health Commissioner, has held free clinics for children under six years of age for several weeks each Monday beginning at 3:00 P.M.

John D. Archbold Memorial Hospital, Thomasville, has put on free clinics for the treatment of diseases of the eye, ear, nose and throat in children every Monday and Thursday from 2:00 to 3:00 P.M.

The Seventh District Medical Society will hold its next semi-annual meeting at Dalton.

Dr. N. E. Renson, Albany, spoke to the mothers at the pre-school conference held at Albany, May 10, on Children's Diseases.

The Medical Association of Georgia will hold its next annual session at Savannah, May, 1928.

Dr. and Mrs. J. H. McClure, Cornelia, entertained the Habersham County Medical Society on April 13th.

The Second District Medical Society met at Edison, April 8th.

Dr. W. H. Garrison, Clarkesville, gave free clinics for children from six to twelve months of age to immunize them against diphtheria during April and May.

Dr. Jas. L. Bevans, Thomasville, Director of the John D. Archbold Memorial Hospital, invited the public to visit the institution on May 12th and see how it spends its money and stated that while the costs of hospitalization had advanced in proportion to everything else two other factors had brought about a reduction in the cost to the patients; one is the lessening of the number of days spent in the hospital and the other the lowering of the rate for hospital patients.

Dr. W. H. Baxley, formerly of Hephzibah, has removed to Alma and has offices in the store of the Bacon Drug Co.

Dr. C. O. Rainey, Camilla, health commissioner for Mitchell County, left May 3d for Memphis to report for service in the Mississippi flood area.

The south wing of the Medical Department of the University of Georgia, Augusta, was damaged by fire on May 8th. This portion of the building was used as the surgical department.

Dr. L. G. Hardman, Commerce, governor-elect, and T. F. Abercrombie, Commissioner of Health, visited the Medical Department of the University of Georgia, Augusta, and the school for feeble-minded at Gracewood on May 5th.

Dr. R. E. McClure, Quitman, gave a free clinic at Barwick to administer typhoid vaccine on April 12th.

Dr. Stewart R. Roberts, Atlanta, delivered the baccalaureate address for the annual commencement of Emory University School of Medicine.

Dr. Chas C. Fishburne, formerly of Darien, has removed to Brunswick. He resided in Darien for seven years and won the esteem and confidence of the people of that community.

Dr. L. I. Thayer, Associate Director, Division of Tuberculosis, State Department of Health, N. Y., in the Health News Service and in the Public Health Etiquette says that, "Public health etiquette should restrain one from doing those things which offer obvious offense but go farther and include the omission of all acts likely to be injurious, it requires not only the omission of harmful acts, but the commission of helpful ones.

The Sixth District Medical Society will hold its summer meeting at Indian Springs, Wednesday, July 6th. A very interesting scientific program has been prepared.

Dr. Robert L. Tye, McDonough, sailed from New York on the steamship Volendam with Dr. George W. McKenzie's group for a six weeks' course in eye, ear, nose and throat work at Vienna.

OBITUARY

Dr. William T. Brown, 156 Georgia Ave., S.E., Atlanta, died at his home on April 2, 1927. He was born January 16, 1852, in Columbus. Dr. Brown studied medicine under the late Dr. James W. Taylor of Luthersville and after completing his medical course located at Whitesburg. He came to Atlanta about thirty-five years ago and practiced his profession until 1926 when he retired on account of ill health. Dr. Brown was a member of the Fulton County Medical Society, the Medical Association of Georgia and the American Medical Association. Funeral services were conducted by Rev. R. A. Edmondson from the St. John's Methodist Church. He is survived by his widow and one daughter, Mrs. Bell Brown Coleman.

Dr. Geo. W. Malone, Sandersville, died in a local hospital in Atlanta on April 4, 1927. He was born in 1869 and graduated from the University of Louisville School of Medicine, Louisville, Ky., in 1894. Funeral services were conducted from his residence at Sandersville and interment in Bronwood Cemetery. Dr. Malone is survived by his widow, one daughter, Miss Willie C. Malone; three brothers, Hugh Malone of Kentwood, La.; Dr. Steve Malone, Sandersville, and Dr. Jarrell Malone, Jackson.

Dr. Thomas G. Gauntt, West Point, died at his home March 27, 1927. He was born in Randolph County, Alabama in 1882, and graduated from the College of Physicians and Surgeons, Memphis, Tenn., in 1908. Dr. Gauntt was a member of the Masonic Lodge, K. of P., Troup County Medical Society, the Medical Association of Georgia and the First Baptist Church of West Point. Funeral services were conducted from his home on La Roza Heights by Rev. Ernest Quick and interment in Marseilles Cemetery. He is survived by his widow and two sons, Thomas, Jr., and Lafayette.

Dr. Wm. Allen Post, Grantville, died at his home April 7, 1927. He was born in 1879 and graduated from the University of Georgia Medical Department in 1913. Dr. Post was a member of the Coweta County Medical Society and the Medical Association of Georgia. He is survived by his widow, one son, Daniel Zachry Post; one sister, Mrs. Allen Mobley, Jacksonville, Fla.; one brother, Herschel V. Post, Grantville, and his grandmother, Mrs. Silas A. Martin, Grantville.

Dr. John C. Beauchamp, Williamson, died at his home on April 11, 1927. He was born in 1851 and graduated from the Southern Medical College, Atlanta, in 1882. Dr. Beauchamp was active in the political, civic and religious interests of his

section and represented his district in the state senate several times. He was a member of Pike County Medical Society, the Medical Association of Georgia and the Methodist Church of Williamson. Dr. Bauchamp is survived by his widow, three daughters, Mrs. A. P. Dickinson, Williamson; Mrs. Hunton Allen, Rome; Mrs. W. H. Meacham, Atlanta; three sons, C. C. Beauchamp, Atlanta; W. L. and Paul Beauchamp of Williamson.

Dr. John D. Bailey, Summertown, died at a local hospital at Savannah, April 17, 1927. He was born in 1872 and graduated from the University of Georgia Medical Department in 1902. Dr. Bailey was a member of the Knights of Pythias, Masons, Emanuel County Medical Society, Medical Association of Georgia and the Baptist Church. Rev. Rufus Hodges conducted the funeral services from the residence and interment in the Brinson Cemetery. He is survived by his father, H. H. Bailey, Statesboro; five sons, Jno. I. Bailey, Macon; Paul E., Homer C., David D., Edward L., and Fred W. Bailey, Summertown; two daughters, Misses Grace and Tera Bailey, Summertown.

COUNCIL ON PHYSICAL THERAPY

PRELIMINARY REPORT OF THE COMMITTEE ON EDUCATION*

Such educational opportunities as are necessary to teach the proper practice of the various methods of physical therapy may be divided into three heads: (1) premedical school courses; (2) courses in medical schools; and (3) courses of information for the practicing physician.

PREMEDICAL COURSES

The Committee believes that courses in biologic physics should be added to the curriculums of premedical schools. This recommendation is in agreement with a similar recommendation made several years ago by a committee of the National Research Council. The Committee realizes that this will be a slow process, owing to the lack of properly qualified instructors.

While the selection of the subject matter for courses in biologic physics must always be made by the men responsible for such courses, the Council on Physical Therapy will be glad to act in an advisory capacity in laying out the broad outlines of the courses. The chairman of the Committee on Education has already received a request for such advice from a state university.

As the courses in biologic physics are concerned with the application of physical principles to biologic problems, greater emphasis should be placed on the biologic needs than on the physical side of the subject. The instructor should have, therefore, a broad knowledge of the biologic phenomena that may be attacked through physical methods. He should be primarily a trained biologist rather than a trained physicist.

Courses in physics naturally are planned and taught by physicists, who usually look on this subject as a branch of applied mathematics. They are interested in training students to make physics their life work. Great emphasis is placed on the exactness of the methods of physical investigation. It would be highly advantageous to the students and to the department if, in the regular physics courses, physical principles were more frequently illustrated by biologic material. The biologically minded student might have a different attitude toward physics if he realized that many of the fundamental principles in physics were discovered and elaborated by biologists for the use in their biologic investigations, and that, as a result of these contributions, many biologists have been inscribed in the history of science as physicists.

MEDICAL COURSES

The courses in the medical school should be open to upper classmen and graduate students, and should be given by men who are familiar with physical principles, but whose primary interest is in therapeutic applications. The courses would best be given in connection with hospital clinics.

COURSES FOR PRACTITIONERS

Information for practicing physicians could be given, first, by a series of carefully prepared articles published in the current scientific magazines, and, second, by encouraging the presentation of papers on physical therapeutic topics before medical societies. They should not be of the usual case-report type, nor should their content be a summary of contributions to the progress of medicine. The purpose of the papers should be a purely educational one.

*This preliminary report of the Committee on Education is to be followed by additional reports on the medical aspects of education in physical therapy.

Reprint from *The Journal of the American Medical Association* Nov. 27, 1926, Vol. 87, p. 1830.

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TETANUS

It is becoming easier than ever before to give a child a hypodermic of Tetanus Antitoxin, now that this biological product has been purified and concentrated to such an extent that 1,500 units (the prophylactic dose) resembles nothing so much as a few drops of pure water. Vast improvements have been made in the physical properties of Tetanus Antitoxin since the product was first made available to the profession, and with this improvement in form has gone a constantly increasing use in caring for suspicious wounds.

Doses as high as 20,000 units, for treatment, are now offered, in a volume no larger than that of the 10,000-unit dose of a few

years ago; and from this point down to a 3000-unit dose.

See the advertisement in this issue headed "Tetanus Antitoxin (P. D. & Co.)—Potent, Refined, Concentrated." It will well repay perusal.

ABBOGRAMS

At the Annual Meeting of the Abbott Laboratories, held March 17th, the following Officers and Directors were elected:

President, Dr. Alfred S. Burdick; Vice-Presidents, E. H. Ravenscroft, Henry S. Shattuck, James W. Ranson; Treasurer, C. O. Brown; Secretary, S. DeWitt Clough; General Counsel, Alfred W. Bays.

Dr. Alfred S. Burdick, sailed on the Cedric, April 9th, for a two months' trip in Europe. He is accompanied by Mrs. Burdick, Mrs. H. B. Shattuck and Mr. H. B. Shattuck, manager of the New York branch of the Abbott Laboratories. England, France, Germany, Switzerland and Italy will be visited.

Ephedrine stocks, which have been somewhat uncertain since this drug has obtained wide popularity with the medical profession, are now ample to supply all demands. Large quantities of Ephedrine, Hydrochloride, manufactured by the Abbott Laboratories, have been shipped during the past month.

IS THERE A STANDARD SUPRARENAL EXTRACT?

The pressor principle of the adrenal medulla is best known by its original name—adrenalin—the name given it by its discoverers in 1900. A variety of other names have been invented to describe this active principle as offered in commercial form by other houses;

but when the term "adrenalin" appears in print it is associated in the reader's mind with the house of Parke, Davis & Company.

Adrenalin is not made by synthetic means; it is the natural product derived from suprarenal glands, and the natural product is levorotatory. Parke, Davis & Company stress the fact that their manufacturing process not only yields the levorotatory (active) extract, but also that the process is so designed as to keep that extract in its active levorotatory condition. See their advertisement elsewhere in this issue.

SKIN ERUPTIONS MAY COME FROM DISTURBED DIGESTION

Pimples, blackheads, eruptions, boils, itching and even more uncommon forms of skin disease are definitely associated with some disturbance of stomach or intestines, says *Hygeia* for July. Changes in finger and toe nails that become brittle, opaque, thick and lusterless are also due to difficulties of digestion.

The old custom of taking a cathartic or laxative when boils and pimples appear has some value in that the medicine removes decomposing and incompletely digested material from the intestinal tract. It will not, however, correct the fundamental disorder; for this a physician's services are required in order to find out the deficiency and toxic products that are developed and that bring about the symptoms.

DRUG ADDICTS

DRUG AND ALCOHOLIC PATIENTS ARE humanely and successfully treated in Glenwood Park Sanitarium, Greensboro, N. C.; reprints of articles mailed upon request. Address W. C. Ashworth, M.D., Owner, Greensboro, N. C.



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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA

PUBLISHED MONTHLY under direction of the Council

Volume XVI

Atlanta, Ga., July, 1927

No. 7

PERIODIC EXAMINATIONS OF APPARENTLY HEALTHY PERSONS*

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Secretary-Editor

South Carolina Medical Association

Seneca, S. C.

The periodic health examination by groups, by commercial agencies, by insurance companies and a few private practitioners is not a new idea but for a nation-wide program on the part of organized medicine, the plan is original in the United States and dates from the meeting of the American Medical Association at St. Louis in 1922 when the following resolution offered by the Council on Health and Public Instruction was adopted:

Whereas, the need and value of periodic medical examinations of persons supposedly in health are increasingly appreciated by the public, it is recommended by the Council on Health and Public Instruction, that the House of Delegates authorize the Council to prepare suitable forms for such examinations and to publish them in the Journal of the American Medical Association; and that the county medical societies be encouraged to make public declaration that their members are prepared and ready to conduct such examinations, it being understood that the indigent only shall be examined free of charge and that all others are expected to pay for such examinations.

Dr. Haven Emerson of New York was appointed Chairman of a Committee to submit blank forms for the use of physicians in conducting those examinations. There was a feeling that if necessary to enlist on the original committee the knowledge and wisdom of men in the closest touch with the profession in the field, especially the general practitioner.

Therefore, at the annual meeting of the Secretaries of the State Medical Societies and Editors of State Medical Journals held in Chicago in November, 1922, a Committee of State Secretaries was appointed to co-operate in the preparation of the blanks. The writer of this paper was a member of this special committee. Subsequent events moved swiftly in the consummation of the general plans but much remained to be done. In the summer of 1923 when the American Medical Association met at San Francisco, a report of these committees which included blank forms of record for the use of the physician in making these examinations and a small manual of suggestions as to the methods for conducting such examinations was presented. Meanwhile the report was published in the Journal of the American Medical Association for May 12, 1923, the largest Medical Journal in the world. Criticisms, comments, pro and con and rather wide discussions followed. In June, 1924, when the American Medical Association met at Chicago the reactions to such a stupendous proposition naturally began to appear in more concrete forms: the following resolution by the Reference Committee on Hygiene and Public Health for instance:

Whereas, periodic medical examinations of all the people from birth to death are of great importance in the promotion of health; therefore be it

Resolved, that state and county medical societies be urged to endorse as a part of the health program of organized medicine the taking of these examinations;

That the members of the respective societies be requested to make such examinations in the homes or in their offices, free to any persons who, by reason of economic conditions, require such favorable consideration, and

That in the performance of the work the same sympathetic confidential relation be

*Address delivered before the Public Meeting of the Medical Association of Georgia at Athens, May 12, 1927.

maintained between physician and patient or family as has ever characterized the efforts of true physicians.

Subsequently another report by this committee was referred to the Board of Trustees as it would cost a good deal of money, viz.:

Whereas, the American Medical Association is in sympathy with, and has officially approved, periodic medical examinations of apparently healthy persons, and

Whereas, physicians generally require more concrete formulæ and suggestions by which such health examinations can be effectively accomplished; and

Whereas, such assistance can be best provided by a properly prepared manual compiled from existing experience in this field of medical practice; therefore, be it

Resolved, that the House of Delegates direct the Board of Trustees to immediately cause such a manual to be published and made available to all physicians.

In all these preliminaries the special committee of State Secretaries were securing data by correspondence, by personal interview with individual physicians, by contact with health officers and health workers, medical college professors, hospital executives and last but not most important perhaps of all, conferences with lay organizations and individuals. As a result of these vast labors a revised blank and a larger and more comprehensive manual of instructions came into being. Time and experience will probably dictate that these blanks and the manual be further simplified. Both in some form are essential. It has appeared highly necessary in order that this campaign go on to full fruition that the doctor himself be examined. The first attempt was made by the Kings County Medical Society, New York on, 91 members early in 1924. A summary of the committee findings follows:

1. The doctors in Brooklyn are in better general condition than other groups of men in the community, although on the basis of the sample examined, one-third of your membership might well practice "girth control".
2. The significance of such findings as hypotension or poor muscle tone needs scientific investigation. Also methods of sizing up psychological soundness need to be developed.
3. The medical service required in making health examinations is of a high order in that it requires not only time but also discriminating judgment to rightly interpret the significance of various minor findings in relation to habits of living.
4. The Brooklyn experience has been of value to our Committee in supplying us with a group of intelligent and friendly critics who can help plan next steps in developing the practice of pre-clinical medicine.

In the fall of 1924 the Pennsylvania State Medical Society offered Health Examinations to its members at the annual meeting and in April, 1925, the South Carolina Medical Association did likewise being, we believe, the first of the Southern States to offer such a demonstration.

At this point perhaps a brief outline of the progress of the campaign in South Carolina may be in order. First of all the author of this paper, Secretary of the Association, on his birthday, November 19, 1923, submitted to a health examination and then was in a position to speak conscientiously before county, district and other societies from personal experience. Plans for the examinations at the State meeting proceeded forthwith.

The professor of Physiology in the State Medical College was invited to act as chief of staff. Many of the other professors including the Dean, who is an eminent Internist took part. From different sections of the State the leading physicians, surgeons and specialists were utilized. Dr. Stewart R. Roberts of Atlanta, one of the distinguished members of the Medical Association of Georgia acted as an expert consultant. Included in the program was a letter to every doctor and the American Medical Association history sheet. Laboratory facilities were provided both at the State Medical College and in the hospitals of the City where the Association met. Examining rooms were available in proximity to the main auditorium.

A creditable number of our members took advantage of the opportunity to submit to a health examination by the most highly trained staff of doctors ever assembled in South Carolina.

Subsequent to this demonstration the writer being a member of the State Board of Health induced the Board to present each doctor in the State with a copy of the larger manual of the American Medical Association. The campaign by this time was in full swing. Most of the officers of the Association were committed to its prosecution.

The President visited every section of the State in its interest as did other co-workers.

At the meeting in April, 1920, the Association invited Dr. C. Ward Crampton, Chief of the Health Clinic at the New York Post Graduate School to give a demonstration on a layman as to the technique of making a health examination. This was followed by an address on the same subject. No clinic ever held by our Association commanded closer attention or interest than this health clinic.

The final stage of the plans for taking in the remotest hamlets in South Carolina will be consummated at Columbia on May 25, 1927. About fifty of the most enthusiastic and ablest supporters of the movement have been invited by the President to meet at Columbia, a central point, and subscribe to the ideas as set forth by the President, viz.: to immediately provide speakers to go before the service clubs and other organizations and call attention to the importance of Health Examinations. The same or another set of speakers will go before every county and district medical society and demonstrate the technique of the examination as now considered most effective and practical.

To promote the better equipment of South Carolina doctors not only to undertake examinations of the apparently healthy citizen but to give him the most scientific care when he is sick, the Board of Trustees of the State Medical College on April 28, 1927, upon request of the State Medical Association decided to open the doors of the college twice a year for intensive intramural post-graduate courses free of charge. In addition to this service the entire faculty will also be available for twelve months out of the year to go out to the county and district medical societies and give brief, intensive courses to the busy doctors who can not leave their homes. These professors will be prepared to instruct physicians in the latest methods of conducting health examina-

tions, in addition to other courses as desired.

South Carolina is peculiarly fortunate in any attempt to promote measures for the benefit of the health of the people. The organic law of 1879 proclaimed the South Carolina Medical Association to be the State Board of Health. The Association nominates an Executive Committee, consisting of one physician from each congressional district who is commissioned by the Governor. They serve seven years and elect the State Health Officer. A similar provision is made for our State Board of Medical Examiners. The closest co-operation exists with our State Medical College. All of these provisions are highly conducive to concerted action when called for. The State Health Department has recently moved with its many divisions and laboratory into a magnificent State Office Building costing approximately one million dollars and the Legislature just adourned appropriated three hundred and seventeen thousand dollars for the work of the board the coming year.

The basic idea of the leaders of the American profession is that these health examinations shall be made by the private practitioners rather than in a wholesale manner by health clinics of the commercial type. The practitioner is competent though in many instances it may be necessary for him to catch a little different view point and make some additional preparation for properly conducting such examinations. This is the crux of the problem for organized medicine. It will be successfully solved but will take time. To activate one hundred and fifty thousand doctors and one hundred and eighteen million people is indeed a colossal task. It is worth while?

The best argument I have seen comes from Dr. Louis I. Dublin of the Metropolitan Life Insurance Co., one of the world's greatest statisticians.

"The nation-wide acceptance of periodical medical examination offers an excellent opportunity for diminishing the mortality of middle life. The physician's problem in prolonging the life of persons afflicted with diseases of the heart, blood vessels, and kidneys, is to get the case early, to inculcate habits of work, exercise and diet which will prevent

embarrassment of the circulatory and renal apparatus. Numerous instances are on record where persons who sought advice for the management of incipient disorders of this type decades ago are still at work, leading useful lives, bearing responsibilities, and taking an active part in community life. The hope of the periodical health examination is to extend a benefit of this kind to the hundreds of thousands of persons who suffer from minor impairments and do not appreciate the value of personal hygiene as a life prolonging agency.

Periodical medical examination seeks also to remedy such conditions as focal infection, overweight, overfeeding, reckless expenditure of energy and disregard for the simpler rules of living which may lead to impairment of the circulatory and renal tissues. Here the work must be done with younger people; and this work can lead incidentally to an increase in working efficiency and happiness.

Some results of periodical health examinations will be of interest. Among 17,000 adult white males recently examined, some 13 per cent were found to be overweight by more than 20 per cent, above the usual standards for height and age. "Heavy dentistry," with suspected focal infection, was found in 42 per cent of the cases. Enlarged, septic or buried tonsils were discovered in more than one quarter of these adults. What a budget of future trouble could be avoided for this group if it were possible to correct these defects alone. Then high blood pressure was found in some 7 per cent of the cases.

That periodical health examinations should begin in the early adult life is shown by the rapid increase of the percentages of impairment with advancing age. Young persons, advised in hygiene, have a good opportunity for eradicating an adverse finding and by doing so add not only to their efficiency but to their longevity prospect. Thus, over-weight was observed in only 5 per cent of the persons examined under age 25, but after age 55, in close to 20 per cent of the persons coming to the physician. High blood pressure showed a percentage of less than 5 per cent, under 35 years of age, but of 10 per cent, between 45 and 54 years and more than 20 per cent, beyond 55 years. The young people who were

apprised of their condition by the physician have better longevity prospects now, when they can safeguard themselves, than they could have had if no examination or advice had been given them.

That periodical health examination reduces mortality is shown by the after history of some 6,000 persons examined in the two years, 1914 and 1915, and observed until 1920. According to prevailing mortality tables there should have occurred 303 deaths in this group, but only 217 actually took place. This means a reduction of 28 per cent, in the death rate!

It is seen, therefore, that periodical medical examinations can and do modify mortality tendencies. That is why the public health movement and the medical profession should do everything in their power to encourage periodic health inventories. A definite addition of years of productive service to the community will result."

Sir George Newman of England has recently said: "The old order has vanished. But the practitioner remains, and although he appears to be restricted in sphere because of the growth in specialism, he is not less important or effective. As our first line of defence against disease, he is the heir of two centuries. But he is more than that, as we shall see in a moment. Whilst the claims on him have grown socially more insistent and medically not less exacting, his power over disease has increased. The labours of his predecessors have removed many of his difficulties—pain and sepsis have been reduced, the 'fate' of scourge and pestilence has gone, facilities and institutions have been provided, instruments of precision have been invented, his education and equipment have been vastly improved, his professional status and opportunity enlarged. In the rapid growth of knowledge and skill, surgery has enormously widened its borders and become more preventive and conservative in spirit; a dozen vaccines are at the disposal of the practitioner, and a whole new pharmacopeia of organotherapy and serum-therapy is available. The age of humours and miasmata has given place in the medical mind to the reaction of the body as between seed and soil, as between predisposition and resistance, as between certain and known effect. Scurvy and small-pox,

typhus fever and cholera have vanished from the daily routine, and the practitioner of the twentieth century faces a future of conquest of disease undreamt of by his predecessor of the eighteenth century. Nor can the general practitioner any longer escape definite relationship with the existing system of medical responsibility or fail to answer to the call to a wider sphere. For in whatever direction we look we find an ever-increasing burden of professional duty imposed upon him, with an ever-increasing responsibility to his medical colleagues and to the State."

Heart disease is the captain of the legions of death, striking down tragically and relentlessly the statesman, the capitalist, the professional man at the zenith of his fame, the great and the near great alike. Here the early health inventory promises much. The menace of all the nations of the earth, horrible even in contemplation is that of cancer. Treated in its earliest manifestations the cure of most cases is certain. Tuberculosis still claims its tens of thousands whose preclinical silent warnings were disregarded until too late for arresting the fearful malady.

It is no utopian fancy to assume that the moment this mighty people heed the advice of its one hundred and fifty thousand medical men and submits to frequent health examinations these unconquerable scourges will yield as did the plagues of bygone days.

It is most fitting I think on this occasion 'mid the classic atmosphere of a famous university and the flower of the young manhood and young womanhood of the great Empire State of Georgia to present the results of the health examinations of two thousand eight hundred students of the University of South Carolina.

These are the pathfinders of tomorrow. If this republic is to stand forever it will do so on the stability of its leaders. This means that the mental, moral and physical fibre must survive the severest tests. Skeletal defects are to be minimized, focal infections stayed, nervous stamina strengthened, mental hygiene inculcated.

I believe this series of health examinations to be one of the largest number hitherto brought to the attention of the public and the medical profession of the South. I am

indebted to Dr. N. B. Heyward of Columbia for the privilege of showing the slides which will now be done and with that my remarks conclude:

TOTAL NUMBER EXAMINED 2715

(Boys 1909, Girls 806)

Defects in vision	545
Underweights	1041
Flat feet	1642
Blood pressure	49
Cardiac	29
Lungs	49
Enlarged thyroids	183
Boys	35
Girls	148
Scabies	4
Hernia (all boys)	36
Hemorrhoids	100
Infected tonsils	527
Dental infection	785
Pyorrhœa alveolaris	1070
Albuminuria	52
Glycosuria	2
Nasal obstruction	62
Ears (deafness or Disc.)	26
Spinal deformities	6
(Pott's 2, Lat. Curv. 4)	
Varicocele	246
Menstrual Disturb.	66
Undescended testis	8
Enlarged spleen	10
Average age	20.7
Average blood pressure	119.7
	66.9

UNDERWEIGHTS

Fallen arches	624
Dent. infection	318
Pyorrhœa alveo.	459
Infected tonsils	189
Lungs	27
Albuminuria	14
Blood pressure	13
Enlarged thyroid	66
Cardiac	12

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A BRIEF HISTORY OF PUBLIC HEALTH WORK IN GEORGIA*

M. E. WINCHESTER, M.D., DR. P.H.
Director, County Health Work

Public Health is not a definite science, but a composite of many sciences. One of the earliest public health attempts was that of the Romans in municipal sewerage and water. After the downfall of this nation there was a complete reversion, and for several hundred years there was no work in public health except isolation and quarantine on plague and leprosy. At the end of the eighteenth century and the first of the nineteenth century there was a beginning of some public health work in London on account of the filthy condition of the Thames River. In 1865, in New York, one of the first attempts on a sanitary survey was made. The first marked improvement in industrial public health was in 1802, when Sir Robert Peel introduced a British Factory Act, the first of its kind in history.

Beginning in 1830, we entered the Golden Age of Bacteriology. In 1882, Koch discovered the tubercular germ, and in 1883, the cholera germ. In 1884, the typhoid and diphtheria germs were discovered.

The report of the Massachusetts Sanitary Commission was made in 1850, and gave rise to the first Board of Health. In 1870, the value of the examination of the water supply was pointed out to the Massachusetts Board of Health by Williams, Nichols and Ripple, and they developed many of the tests that are used today.

During the period of 1890 to 1910, yellow fever and malarial work was being developed

and this was the beginning of the new era in public health.

The first record of any law pertaining to public health in Georgia was passed February 5, 1866, for the control of smallpox in the state. The power to enforce this law was given to the Justice of the Inferior Court (which corresponds today to the Judge of the Superior Court) and the corporate authorities of towns and cities. These authorities were given the power to provide suitable hospitals and furnish medical attention, and to provide proper quarantine, and if necessary to place guards to enforce the quarantine law. The Governor was required to purchase the necessary quantity of vaccine, and have it sent to the justices of the Inferior Courts free of cost in counties where an outbreak of smallpox had occurred.

It was nine years later before a real State Board of Health was formed. At the regular session of the Georgia Legislature, February, 1875, a bill was passed creating a State Board of Health. The law authorized the Governor to appoint a physician of experience from each of the nine congressional districts, who were graduates of medicine, and who had practiced not less than ten years. These, together with the Comptroller General, the Attorney-General and the State Geologist, constituted the first Board of Health of the State of Georgia. The first meeting of the Board was in June, 1875. The members of the Board were as follows:

J. G. Thomas, M.D., Savannah.
Benjamin M. Cromwell, M.D., Albany.
George F. Cooper, M.D., Americus.
F. A. Stanford, M.D., Atlanta.
G. E. Lussdorf, M.D., Macon.
G. W. Homes, M.D., Rome.
Henry F. Campbell, M.D., Augusta.
H. H. Carlton, M.D., Athens.
M. J. Hammond, Attorney General, Atlanta.
W. L. Goldsmith, Comptroller-General, Atlanta.

George Little, State Geologist, Atlanta.

With the exception of the last three members, the board was appointed the same as it is today, one physician from each congressional district.

At the first meeting of the State Board of Health in June, 1875, Doctor G. S. Thomas of Savannah, was elected President, Doctor

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

V. H. Taliaferro was elected Secretary and the executive member of the board. The law fixed his salary at one thousand dollars a year. The Sanitary Commissioners did not receive a salary, but received actual personal expenses while engaged in duties of the State Board of Health. The duties of the board of health were somewhat similar to those of the present board, principally the prevention of disease, promoting public health, and the collection of vital statistics.

The Ordinary of each county was made the local registrar, and every doctor required to report every birth and death under a penalty of ten dollars if he failed to do so, or if no physician was present, the nearest of kin was required to make the report. The ordinary was required to keep a separate record of Vital Statistics and received five cents for each birth or death registered. The appropriation for this Act for the year 1875 was fifteen hundred dollars.

The meeting of the first State Board of Health was on October 12, 1875. Having been organized only four months, this meeting was not of much importance as to the work accomplished. The report which consisted of about one hundred pages was mostly correspondence from other State Health Boards congratulating the State of Georgia on its progressive move. Much space was devoted to the registration of births and deaths and the value of their registration.

A very interesting talk on Sanitation was made by Doctor Thomas, President of the Board. The Secretary was instructed to devote much time to smallpox work. The Board adjourned and decided on October 10, 1876, as the date for their next meeting and Atlanta as the place.

The State Board of Health held their second meeting in Atlanta on October 10, 1876, and all members were present except the Secretary, who was delayed two days in Savannah on account of an epidemic of yellow fever. Doctor Taliaferro made a complete investigation of the facts relating to the origin of the yellow fever epidemic, and decided that the sailors on the ship "Maria Carlina" who had moved their bedding to a boarding house, brought the fever to Savannah. He also reported that the sanitary conditions in Savan-

nah were very poor, much area around the city not being drained, and bad sewerage, and thought these conditions played an important part in the spread of the disease. Macon, Brunswick and Augusta, also, had a yellow fever epidemic at this time. The Savannah Morning News stated on October 30, 1876, that 8,000 refugees had left Savannah, and the loss to the city was over one-half million dollars. The same report showed that Savannah had spent \$120,833 for charity during the epidemic.

On his visit to Savannah during the first outbreak of yellow fever, Doctor Taliaferro had trouble with the Mayor, who resented his interference in the epidemic, but that did not stop him. The State Board of Health was invited to hold a special call meeting in Savannah at once, but decided to hold a special call meeting there on December 12, 1876, and to meet in Brunswick after the termination of the meeting in Savannah.

Doctor Thomas, President of the Board, made a very interesting talk showing the necessity of county health boards throughout the state as follows:

"We have but to comprehend the fact that a very large proportion of our most malignant and fatal diseases are absolutely preventable to appreciate the worth of such organized bodies. The greatly dreaded scourge of smallpox is clearly within the scope of preventive medicine. The same may be said of typhoid fever, and to some extent, of malarial diseases. Where malarial diseases prevail as the result of natural causes, it is well known that the surface drainage incident to the best system of agriculture, is largely promotive of healthfulness in these sections. No question is more vital in its interest to a very large portion of this State."

I quote to you Doctor J. S. Weatherby, President of the Medical Association of the State of Alabama (This association was also the Board of Health in Alabama as it is today):

"I firmly believe that if a thorough system of drainage was put in force, the greater portion of our state that is affected with this scourge (Malaria) would be made

perfectly healthy. I am convinced that it would be a wise policy and a real measure of economy, for the state government to adopt some system looking to the gradual drainage of these portions of the state most subject to malaria."

On December 12, 1876, the State Board of Health went into session at the Metropolitan Hall (Savannah). The Mayor of the city was officially informed that the State Board of Health was holding a call meeting in his city to investigate the facts relating to the origin of the late yellow fever epidemic and asked for his co-operation. Much time was spent in gathering testimony from the boarding house keepers and investigation of the general sanitation of the city. No recommendations were made, except for the Secretary to proceed as he was doing to combat the epidemic.

No appropriation was made for the State Board of Health by the Legislature in 1877 and the first State Board of Health died for the want of an appropriation to continue the work.

Doctor Eugene Foster in his book "From Memories of Georgia," written in 1895, expressed his opinion of the failure of the Legislature to make an appropriation in 1877 as follows:

"Utterly devoid of appreciation of the possibilities and economy of a public health service, the Georgia Legislature in 1877 blotted the State Board of Health out of existence by refusing to vote the paltry sum of fifteen hundred dollars a year for its maintenance. This one act resulting from shameful ignorance has done more to retard the prosperity of the State than any other act since the settlement of the Colony."

No one could read the two annual reports of 1875 and 1876 without admiring the members of the first State Board of Health for the efforts they made to do just what we are trying to do today.

After a lapse of twenty-three years, the State Legislature organized the Second State Board of Health in 1903. This Board consisted of twelve members, one from each congressional district, appointed by the Governor. An appropriation of three thousand dollars per year was made for the board. Doc-

tor H. F. Harris of Atlanta, was elected Secretary of the Board and was to receive two thousand dollars a year, while the other thousand was to be expended in the general work of the Board.

The Secretary of the new board again found himself in the same predicament as the Secretary of the original board. No one saw fit to help get the board organized and running. Doctor Harris immediately called upon the Governor and asked to be assigned an office for his use, but was told that every room in the Capitol was in use by the departments already in existence, and that he saw no possibility of his securing quarters of any kind at that time. After some months, Doctor Harris secured a small room in the basement. It was well along in 1904 before the quarters were made so that the new department could move in, and then no equipment was available, but Doctor Harris had a microscope and some little apparatus with which he could start work at the time.

In the summer of 1904 the Legislature was persuaded to appropriate the sum of seven thousand and five hundred dollars for the years 1905 and 1906, to which was added two thousand eight hundred and twenty-nine dollars on account of a yellow fever epidemic.

The first work of the new State Board of Health was devoted to bacteriological work. Doctor Harris' perseverance in this work, although handicapped by such limited resources, is to be highly commended as he laid the foundation for the work of today.

Doctor Harris resigned in 1914 in order to devote his time to research work, and Doctor T. F. Abererombie was elected executive of the State Board of Health and State Commissioner of Health. The health laws of the State were amended in 1914, giving the State Board of Health power to organize the eight departments now operating under the supervision of Doctor Abererombie.

LABORATORY

The Laboratory was organized under the administration of Doctor Harris and formally opened January, 1905, and was operated solely by Doctor Harris for two years. By 1907, the work had greatly increased and he employed as his assistants a technician and a clerk. The Laboratory began manufactur-

ing the Pasteur Treatment in 1908. In 1909, an appropriation was secured to begin the manufacture of diphtheria antitoxin and it was in 1912 before the manufacture and distribution of typhoid vaccine began.

During the first nine years of its operation the Laboratory examined 31,079 specimens. In 1926, 49,116 specimens were examined, over 18,000 more than were examined the first nine years of operation.

COUNTY HEALTH WORK

The first full time county health project established in Georgia was in Glynn County early in 1914. Later in this year an enabling act was passed by the General Assembly, providing for the employment of full time county health officers, or health commissioners, by county health boards, and defining their duties. This Act was sponsored in the General Assembly by Col. R. C. Ellis, who was then living in Tift County, who had become particularly interested in the need for physical examination of school children.

The Ellis Health Law created a board of health in every county in Georgia, consisting of the Chairman of the Board of County Commissioners, the county school superintendent and a physician selected by the Grand Jury. It also provides for a full time health officer, who works under the county board of health, when two successive Grand Juries recommend employment of such an officer. Please remember that each county has a county board of health, whether the Grand Jury approves the Ellis Health Law or not.

Following the passage of the Ellis Health Law, Glynn and Floyd Counties adopted its provisions and early in 1915, began the operation of the first two projects to be established in the state. Both of these have continued without interruption since that time, and have expanded their organizations and activities from year to year, as a result of the increasing popularity of the work. Twenty-four other counties have since established full time health organizations under the provision of the law and several more will begin operation this year.

The personnel of these organizations vary according to the population and resources of the county. In several counties the health of-

ficer, unassisted, is carrying out an excellent program, intensive, but somewhat restricted in scope, while the majority of our county health units have nurses and sanitary inspectors.

Realizing that Georgia had a number of small counties that did not feel able to finance a complete unit alone, the State Board of Health, co-operating with the United States Public Health Service, decided to establish a joint county health district, including three counties. In this project one whole time health officer serves each of the three counties. Under his direction there is on duty in each of the counties a sanitary inspector, and in one of the counties there is a health nurse. This plan has proven practical, and this is one solution of extending public health work over the entire state, as Georgia has many small counties with a low tax valuation in which it would make it too great a burden on the taxpayer to add many of the necessities that are demanded of any progressive county.

The work being carried on in the counties operating under the Ellis Health Law consists of the control of contagious diseases, medical examination of school children and the provision of facilities for the correction of defects; promoting of infant and maternity hygiene; improvement of excreta disposal; eradication of hookworm and malaria; sanitation of milk, food and water supplies; and intensive educational demonstration of which illustrated lectures and moving picture exhibits constitute an important part.

During the year 1926, over 70,000 school children received physical examinations. Twenty-nine thousand of these children were found to have defects that could be corrected, that possibly had never been called to the attention of their parents. Out of this group the defects of 10,829 children were corrected through the assistance of their health departments. More than 6,000 children received hookworm treatment, 44,000 persons received typhoid immunization, 40,652 persons were vaccinated against smallpox and 27,675 children received the preventive treatment against diphtheria.

In the State of Georgia, in counties having a full time health service, typhoid fever was

reduced 18% during the past three years, while in other counties without health service, the rate was reduced only 3%.

The work which is being carried on in these counties should be extended over the entire state. However, there are many counties virtually without health protection, except such as may be afforded by the State Board of Health, and with the small appropriation of three cents per capita, the smallest in any southern state, it is impossible for much intensive work to be accomplished by the State Board. The county is the logical unit for health work and it has been proven the most economical and efficient way to carry out a general public health program.

BRIEF HISTORY OF GEORGIA'S VITAL STATISTICS LAWS

Georgia was the first state in the Union to pass a law requiring the registration of births (1823) and Massachusetts was second (1842). This enviable record, however, is not held by Georgia in regard to laws requiring the registration of deaths, as 17 states, (Massachusetts first, 1842) passed such laws before Georgia.

Under the provisions of the birth registration law of 1823, the clerks of the courts of ordinary were required to register the names, date and place of birth of all persons reporting themselves to him or who may be reported by their parents or guardians.

The first law requiring the registration of both births and deaths was passed by the General Assembly of the State of Georgia at the regular session in January and February, 1875, and went into effect June 9, 1875.

Under the provisions of this law the physicians were required to file a certificate for every birth or death attended by them, with the Ordinary of the county in which the birth or death occurred. The present Vital Statistics Law, requiring the registration of births and deaths, was approved August 17, 1914, but an appropriation for its enforcement was not available until January 1, 1919, when the Bureau of Vital Statistics was organized.

In 1921, Houston County refused to pay such fees on the grounds that there was no provision in the Constitution providing for such taxation. Other counties fell in line with Houston County on this claim.

A case was instituted to test the constitutionality of the law. It was tried in chambers in November, 1924, and decided by the Circuit Judge that such payment was constitutional. Houston County appealed the case to the Supreme Court in December and on June 22, 1925, the Supreme Court reversed the opinion of the Circuit Judge, declaring that the payment of such fees was unconstitutional.

This decision of the State's highest Court resulted in registration falling off about thirty or forty per cent, consequently, the Census Bureau dropped the state as a whole from the Registration area for deaths in 1925. Georgia was admitted to this area in 1922.

In 1926, at the Call Session of the State General Assembly, a bill was passed, almost unanimously, proposing an amendment to the Constitution, legalizing the payment of local registrars' fees by the county. This Constitutional Amendment was ratified at the state wide election on November 2, 1926. On November 16, 1926, the Governor proclaimed the Constitutional Amendment ratified, therefore, on that date the Vital Statistics Laws of 1914 were revalidated.

VENERAL DISEASE CONTROL

The Department of Venereal Disease Control was established June, 1918. The Legislature at this time authorized the State Board of Health to promulgate rules and regulations pertaining to the control of these diseases. The greater part of this work is educational. Thousands of pamphlets on the treatment of these diseases are distributed yearly. Much valuable work was done in the Cantonments during the World War.

In 1926, this Department furnished 37,786 doses of arsphenamine to doctors at a nominal cost and 38,588 Wassermann tests were made free of cost.

CHILD HYGIENE

The Division of Child Hygiene was organized in 1920 and has carried on an active campaign of education. Two thousand one hundred ninety-eight midwives have received instruction since the organization of this Department. One hundred thirty-eight counties were visited in this work, besides, 239 Little Mothers Leagues were organized with an enrollment of 2349.

Through the co-operation of the American Child Health Association together with the Parent Teachers Association and the Georgia Pediatrics Association, a very extensive May Day program is put on each year, a campaign for the immunization of children against diphtheria was carried on last year and over 100,000 children received complete immunization.

PUBLIC HEALTH NURSING

Public Health Nursing was first organized in Georgia in 1923 by the State Board of Health through the Division of Child Hygiene and with the assistance of the Shepard-Towner Funds.

The activities of this organization have had for their object: (1) Better infant care through teaching the mothers, (2) Better care of Mothers through education as to the need and value of skilled supervision during pregnancy, childbirth and lying-in period, (3) More widespread medical and nursing facilities so that adequate maternity and infant supervision will be available.

Itinerant nurses work directly from the State Board of Health and other nurses work in cities and counties where local funds have been appropriated.

HEALTHMOBILE

The Healthmobile is a truck equipped as a doctor's office that travels through rural sections. This car is a gift of the National Phi Mu Sorority to the mothers and babies of Georgia, under the supervision of the State Board of Health co-operating with the Children's Bureau.

The Healthmobile first entered the field for work on June 5, 1922. Since that time it has covered 138 counties representing thirty-five months' time.

The personnel consists of a woman physician, a nurse and a chauffeur, who also operates the motion picture machine. Its activities are limited, in accordance with the laws under which it operates, to advisory care of mothers and children under seven years of age.

The scope of work

- a. Prenatal Advice.
- b. Individual conference with mothers about their children.
- c. Examinations of infants and children under seven years.

- d. Free moving pictures portraying the cause and prevention of diphtheria, hookworm, malaria and smallpox.

The purpose of these demonstrations is to encourage and stimulate the greatest possible demand for public health work which will mean saving the lives of many mothers and babies as well as thousands of dollars.

SANITARY ENGINEERING

Until the organization of the Division of Sanitary Engineering in 1920, water analyses were made by the laboratory. In 1910, 258 analyses of water supplies were made, while in 1920, the number reached 1,017, and in 1926, 6,608 analyses were made. Seventy-five per cent of the public water supplies of the state are under the direct supervision of this Department. Last year approximately 30,000 people of the rural sections received assistance in obtaining purer drinking water.

In 1910, very little was spent by the municipalities for mosquito eradication and malarial control, while in 1920 about \$48,000 were spent and in 1926 the amount had increased to about \$275,000.

The rapid development of hydro-electric power in the state has greatly increased the amount of work in this Department, through efforts to prevent malaria in the areas where water is impounded.

STATE TUBERCULOSIS SANATORIUM

The Georgia State Commission on Tuberculosis was created by the General Assembly in 1904, but the real organized fight against tuberculosis in Georgia began when through the influence of Captain W. S. Raoul, a free dispensary for the treatment of consumption was established in connection with the Atlanta Associated Charities, April 1, 1907. Succeeding steps in the fight were the act of the Legislature of 1908 providing for a State Sanatorium and its subsequent establishment at Alto.

The first patient was admitted to the Sanatorium at Alto in 1911, the state co-operating with the Raoul Foundation made it possible to build and operate the Sanatorium at this time.

It soon outgrew the appropriation and in 1918 was taken over entirely by the State Board of Health. It was known by every one connected with it that the building and ap-

appropriation were inadequate to handle the demands made upon the Institution, so in 1923, an Act was passed by the General Assembly placing a special tax upon cigarettes and cigars to raise one-half million dollars for a new building at Alto. Today Georgia has in the hills of Habersham one of the best equipped Tuberculosis Sanatoriums in the United States, able to care for 240 patients, 150 beds for whites and 90 beds for colored patients. The appropriation is sufficient for the maintenance of only 100 patients at the present, but we hope the next Legislature will appropriate enough money to care for every bed.

GEORGIA TRAINING SCHOOL FOR MENTAL DEFECTIVES AT GRACEWOOD

Realizing the need of a school for feeble-minded children, the Georgia Legislature in 1920, appropriated sufficient funds to buy the buildings of an orphanage near Augusta and early in 1921, this Institution was opened.

The need of such an institution is shown by the fact that each year the number of applications has so increased that last year, Gracewood cared for 90 children and had a waiting list of over one thousand. They are now caring for more children than they have facilities for and there must be an additional appropriation before it can meet the demands upon it.

COLLABORATING AGENCIES

The State Board of Health is aided in its battle against disease and death by the advice and co-operation of public health agencies, civic organizations, societies, school authorities, state and county officials and all other agencies, public and private, that have the public welfare at heart.

In 1909, the Rockefeller Foundation gave their first aid to Georgia by giving sixteen thousand dollars for hookworm work. They have continued each year to help us financially. Each year the Foundation sends specially trained men to work in the state.

The United States Public Health Service has given thousands of dollars during the past ten years as well as assigning especially trained men to this state. While many other organizations through their help, both financially and otherwise, have been of great service to the promotion of public health work in

the state.

The total amount expended for public health work in Georgia by the State Board of Health in 1926 was \$172,500, \$96,431 was appropriated by the state, while \$72,069 was given to the state by the International Health Board, the United States Public Health Service and the Sheppard-Towner Fund.

ACCOUNTANT

The State Board of Health is very fortunate in having as accountant, Mr. C. L. Tinsley, who has held this position since Doctor Harris was State Commissioner of Health.

Each department has accomplished the maximum amount of work with the funds available and the consummation of the extensive public health program which is the ambition of every member of the State Board of Health cannot be realized until further appropriations are made by the Legislature.

DISCUSSION ON PAPER OF DR. WINCHESTER

Dr. J. M. Anderson, Columbus: On account of my connection with public health matters in the past I think I am qualified to discuss this paper. I was relieved from the Army to take part in state public health work. I was given a commission in the Health Corps, U. S. P. H. Service, as captain. I was speaker on public health education at the American Medical Association meeting in New Orleans and again in Boston, where I spoke in the oldest church in the United States on this subject.

I want to tell you something that as far as I know is new in regard to public health. At home we put on a campaign in public health upon the open air anti-spitting. This is where I think the something new comes in and it may be considered foolish by some of you but I have tested it in the great laboratory of experience. You have to give people a better reason for not spitting than that they will give the germs to the other fellow. Now then, children contract tuberculosis in the first decade and it is automatically arrested until the third decade when they become reinfected because of their over work or some extraneous disease and it is not automatically arrested and the patient proceeds to die. Why is that? The child does not know how to spit. It has to be taught and it is a hard matter to teach. They automatically swallow everything that comes up. That is nature's way. When they reach the third decade the tuberculosis is reactivated and they have learned the beautiful habit of spitting. My theory originated twenty years ago when I came down with an active case of tuberculosis. I wrote to one of my

friends about it but he did not agree. The secretion coming out of the lung in a case of tuberculosis and other respiratory diseases is taken into the human stomach. The human stomach will digest anything on earth that is at all digestible. This secretion is digested and that product of digestion is thrown back into the circulation. That is nature's way of providing revaccination against tuberculosis. If patients do not spit, and believe me I have tried this personally time and again. I tried it because I was teaching other people not to spit. I have had tuberculosis twenty years and I believe the secret of my being here today is non-spitting. It is not a happy thought but it is logical. Whenever you try to improve nature you are on dangerous ground—nature does not do things by accident or without purpose—you must be very sure that you are improving on nature instead of interfering with nature.

Dr. T. F. Abercrombie, Atlanta: I hold in my hand reports of the State Board of Health of 1875. For the needs of the State of Georgia as they exist today we can do no better than follow those men. Dr. Winchester spoke to you of the vital statistics list. These men in urging on the state of Georgia the reporting of births said this, "the registration of vital statistics is the greatest public health activity". This was written fifty-two years ago. It is a great law. It is an enterprise strictly our own. It was initiated by medical men and by them it was carried into accomplishment. By them vital statistics are to be recorded, by them they are to be reported. By physicians are these same facts to be tabulated and generalized. There are other benefits to be deduced, namely the advancement of medical science. Remember we are not in the registration area yet, after fifty-two years.

(The rest of the discussion was read from the book mentioned in the first line..)

Dr. J. L. Campbell, Atlanta: For a number of years I have been interested in the medical history of Georgia. Every movement for the betterment of mankind has had a background, yet many of the most valuable discoveries have been purely accidental. If you remember, the discovery of anesthesia made by Dr. C. W. Long was the result of seeing a man under the influence of sulphuric-ether fall and break his ankle at an ether party. The discovery of preventative inoculation made by Pasteur was the result of his having injected a chicken with an attenuated culture of chicken cholera organism. He found later that this chicken would not develop cholera even though a very virulent culture was used. The background for all public health laws and public health movements throughout Georgia originated with Dr. Milton Anthony in Au-

gusta when he went to the Legislature in 1825 at Milledgeville and urged it to create a Board of Examiners. Dr. Calhoun's grandfather was a member of that Board along with other distinguished men throughout the state. This did more during that period for the public health of Georgia than any other movement up to the present time. Previous to that time in Savannah Dr. Ewald wrote a book on the practice of medicine. By the way, I think it is the best book on the practice of medicine ever published in the United States. The doctors from Savannah built a hospital for the care of slaves. This was largely a humanitarian movement but at the same time it was a great economic movement because slave owners were able to care for their slaves in this hospital at a very much less cost than in their private homes. At the same time it separated these sick people from home surroundings and favored the prevention of the spread of the disease. Those health movements were very early in the history of Georgia and we see this great and wonderful health movement that is on foot today as an efficient background of these early movements. I wish it were so that I had time to run over some of the advances that have been made in our health laws from time to time.

I certainly enjoyed Dr. Winchester's paper and think it is very timely. I think each year we should set aside a certain period for the discussion of the history of movements of this kind.

Dr. W. C. Hafford, Waycross: One thing that I came up here to say was just a little ambition that the 11th District has in regard to the program of the State Board of Health in establishing the Ellis Health Law. We have made it an ambition down in the 11th District to get every county during the next two years under the Ellis Health Law. We have succeeded partially. It is this appeal that I want to make to you again. You are interested in your own communities. You are known in your own communities; Dr. Winchester and Dr. Abercrombie are not. It is up to us as individual doctors to bring the appeal to our own counties if we are going to put over the Ellis Health Program in our counties. It is all right for us as delegates to endorse the State Board of Health program. It is all right to get up here and talk about it, to discuss the question and get all the information we can but it is up to the individual physician in the state of Georgia whether you put over the health program in your state. I have worked. Other members in my community have worked. We have met with wonderful success down there but it is work. It means trips out of your office. It means individual work. As Dr. Winchester

says, the whole basis of your public health work is right back in your county. The sooner we recognize our personal responsibility in the matter just that soon are we going to have better health conditions in the State of Georgia.

THE TREATMENT OF ACUTE EMPHYEMA OF THE PLEURA

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Atlanta

Prior to the investigations of the Emphyema Commission of the United States Army in 1918, the conventional method of treating emphyema was immediate operation with open drainage of the pleura. The average mortality at the army camps at that time was 30.2 per cent and in some approached as high as 70 per cent. Following the recommendations of the Emphyema Commission the mortality dropped to 4.3 per cent, and with this reduction a standardized treatment was instituted. The principles on which this treatment is based are:

- (1) The avoidance of an early open pneumothorax.
- (2) The early obliteration and sterilization of the pleural cavity.
- (3) The careful watch of the progress of the patient by roentgenograms.
- (4) The nutrition of the patient.
- (5) An open pneumothorax to provide adequate drainage when the stage of acute pneumonia has subsided, if the danger of chronic emphyema is imminent.

THE DANGER OF OPEN PNEUMOTHORAX

There are two main types of pneumonia; namely, the hemolytic streptococcus infection and that produced by the pneumococcus. In the former, pleural effusion occurs early and there is widespread involvement of the lung tissue. The bronchi and bronchioles are infected, and, as MacCallum has pointed out, there are patches of atelectasis affecting those portions of the lungs formerly supplied with air by the obstructed bronchioles. The extensive involvement, the bronchial obstruction with atelectasis, and the profound toxemia all lead to marked dyspnea and cyanosis. In the pneumococcus cases the pneumonia is usually lobar in type, and dyspnea and cyanosis are

usually less marked and pleural effusion is more likely to occur later in the course of the disease.

It is evident that in patients already cyanotic, dyspneic, and with a lowered vital capacity, that open pneumothorax, with its partial or complete collapse of the lung, will add a burden which cannot be carried. It has been shown by Graham that in a normal thorax the mediastinum offers so little resistance to pressure that a pleural opening on one side, with a subsequent increase of intrapleural pressure, affects the other pleural cavity to practically the same extent. The deaths which are reported as due to "pleural shock" following thoracotomy with open drainage are for the most part due to partial collapse of both lungs, which are already greatly embarrassed by disease.

It would seem rational, therefore, to drain the pleural cavity by a closed method, at least until the stage of acute pneumonia was passed and until adhesions of the mediastinum prevent its transmission of pressure to the other lung. The simplest, safest, and easiest method is the use of the Potain aspirator. In the streptococcus infections the exudate is serous or serofibrinous for the first week or ten days of the disease and aspiration of the fluid will give great mechanical relief to the respirations.

As soon as the fluid is too thick or flocculent to pass through an aspirating needle, the introduction of an intercostal tube by means of a trocar and canula should be used. Local anesthesia, 1 per cent novocain, is preferred to general anesthesia, even in children. The patient may sit up on the table or bed or lie on the unaffected side, supported by a pillow to widen the intercostal spaces. After preparation of the skin with alcohol, an incision one inch long is made in the posterior axillary line in the eighth interspace. In a lower incision there is danger of injuring the diaphragm and entering the abdomen. Moreover, an opening through the lowest point of the costophrenic angle is apt to become closed when the diaphragm rises with respiration. The incision is deepened layer by layer until the pleura is reached. As aspirating needle is then introduced to make sure of the presence of pus. The trocar and canula is then

introduced, the trocar withdrawn, a catheter, No. 16 to 22, introduced through the canula, and the canula removed leaving the catheter in place. The skin is then closed around the tube with two or three sutures. By this method the catheter will perfectly fit the pleural opening, and if the distal end is clamped, very little air will enter the pleural cavity. The catheter should be fenestrated and marked so that it will not be passed too far into the chest, and fixed to the skin with adhesive.

The catheter is then connected with a rubber tube leading to a water bottle to prevent the entrance of air into the system. Into this tubing system a T-tube may be placed for the introduction of Dakin's solution, and a bottle to catch the discharge. (Fig. 1.) Vaseline gauze is placed around the wound and a dry dressing held in place with a binder.

For the first twenty-four hours, the pus should be permitted to escape slowly. A good general rule is to remove the clamp from the tube for five minutes every hour for the first day, after which continuous drainage is allowed.

STERILIZATION AND OBLITERATION OF THE CAVITY

The use of Dakin's solution is a most valuable aid in sterilization of the empyema cavity. In the first place it acts as a mechanical cleansing agent. Secondly, it has a definite antiseptic action. Its greatest value is in decortication of the exudate which covers the lung and prevents expansion.

After the first twenty-four hours, Dakin's solution is introduced into the cavity every half hour. This can be done through the T-tube connection without breaking the siphonage and without disturbing the patient. Ten to fifty cubic centimeters are injected, care being taken to stop if the patient coughs or complains of pain or any sense of fullness in the chest.

To hasten expansion of the lung and therefore obliteration of the cavity, blowing against resistance should be started as soon as the patient is strong enough to carry on these exercises. The use of water bottles or a spirometer by adults, or of toy balloons, toy whistles or horns by children serves the double purpose of expanding the lung and at the

same time is a source of amusement. The exercises should be regular, at 30-minute intervals, and should be graded to increase the expansion.

THE IMPORTANCE OF ROENTGEN RAY EXAMINATIONS

The chest should be examined daily to determine the extent of expansion of the lung, and the possibility of involvement of the sound side. Roentgenograms should be made at four or five-day intervals, particularly if the temperature rises or fails to come down. Only in this way can the progress of the disease be accurately checked. Roentgenograms are of great value in determining the position of the tube in relation to the costophrenic angle and in relation to the margin of the expanding lung.

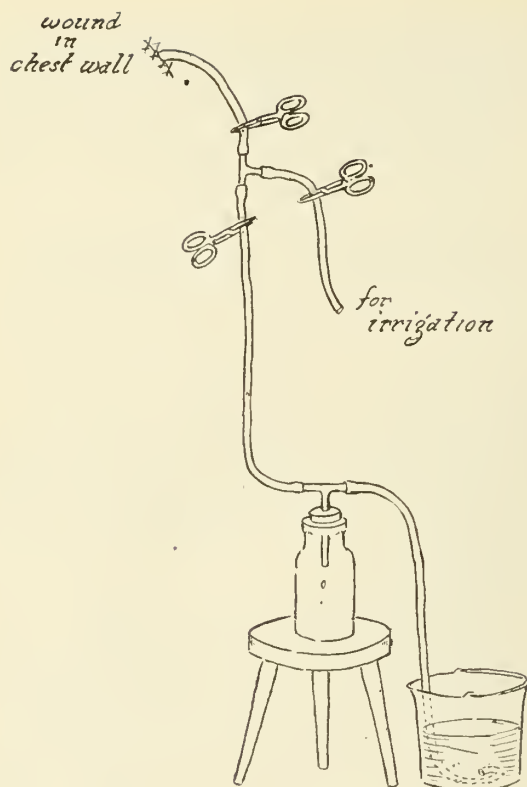
THE NUTRITION OF THE PATIENT

The loss of nitrogen in the pus was found by Bell to cause a negative balance when the caloric intake fell below 1500 to 1700 daily. A mixed diet providing at least 3000 calories for an adult should be given. Fluids should be forced from the start, and should reach 3000 cc. per day. If the patient is unable to take that much by mouth, saline with two per cent glucose should be given by rectum and subcutaneously.

OPEN PNEUMOTHORAX

No empyema will heal, even under the most careful treatment, if adequate drainage is not provided. If the intercostal tube is properly placed, is large enough, and the treatment outlined above is carried out, many cases will heal without rib resection.

Should a cavity persist with purulent drainage for three weeks in spite of frequent irrigations and lung expanding exercises, it is better to enlarge the wound under novocain anesthesia and resect one or two inches of a rib. By this time the pneumonia will have resolved, the cyanosis and air hunger will have disappeared, the mediastinum will have become rigid and the lung will probably be adherent in places to the parietal pleura. The problem will be one of draining a small cavity and the danger of open pneumothorax will have passed. Two rubber tubes should be introduced and attached to the skin by adhesive. No matter how shallow the cavity, a tube without a protecting safety pin should never



Apparatus for closed drainage of empyema. For introduction of Dakin's solution the upper two clamps are removed. After the injection the two clamps on the main tube are removed. In this manner no air is introduced into the siphonage system.

be used. Irrigations and blowing exercises should be continued, but it must be remembered that no cavity will close so long as tubes are in place. As the drainage lessens and becomes thinner the tubes should be made smaller and smaller until only a rubber wick is left in place. This should be left out entirely as the drainage ceases.

Reurrences of empyema, due to insufficient drainage, are common. No patient should be finally dismissed until six months have elapsed. The chest should be examined once a week, and a roentgenogram made before final discharge.

In conclusion, it is again stressed that open pneumothorax, in the early stages of empyema, is a dangerous procedure. Intercostal drainage by a closed method is advocated, together with sterilization and obliteration of the cavity by frequent Dakin's irrigations and exercises for expanding the collapsed lung. Rib resection should be resorted to only after the pneumatic stage is safely passed

and the danger of chronic empyema is imminent.

The writer has quoted freely from the reports of the Empyema Commission. The complete reports will be found in Volume XI of the Medical Department of the United States Army in the World War, published by the Surgeon General, 1924.

POST-OPERATIVE MANIFESTATIONS OF SYPHILIS IN THE USUAL SURGICAL CASES*

THOMAS GREEN RITCH, M.D.
Jesup, Ga.

Upon receiving the request to discuss Post-Operative Manifestations of Syphilis, my first thought was to decline the invitation, due to the paucity of the literature dealing with this subject, however, upon second thought and further consideration I concluded that the subject is indeed a timely one. Not that I can contribute anything new to this particular field, but only review a few cases that have come under my observation, and in this manner possibly induce a productive and helpful discussion of this topic. I feel that many of you will be able to discuss cases occurring in your practice which will be of great help to all of us. And as a consequence our discussion of this class of cases will prove of great value.

At first glance it would seem that Post-Operative Manifestations of Syphilis in the usual Surgical Cases were of comparatively rare occurrence; but further investigation and a study of such cases as are reported will at least suggest that such manifestations are in a great many cases overlooked, rather than not present. Text books show a notable deletion in discussing this subject. But little can be assayed from monographs and articles written and with a subject so neglected it is indeed timely that we discuss it.

We all recognize the fact that changes in temperature, location, nervous and physical shock exert a tremendous effect upon the human economy.

It is a well known fact that many diseases lying latent or dormant for varying periods of time re-assert themselves in acute exacerbation following a change from one climate to

*Read before the Eleventh District Medical Society, Quitman, Ga., December 14, 1926.

another, or with sudden changes in temperature, it is still more common for us to see the effects oft-times alarming of physical and mental shock. To explain such phenomena we frequently draw upon our knowledge of physiology and pathology in vain.

Who among us have not cases of chronic malaria, apparently latent, that have been lightened up into active states by changes from one locality to another?

No less striking results are noticed throughout the whole domain of medicine, in cases of shock, whether it be physical or mental. With physical shock we associate at once the word trauma and in analyzing trauma we do not only speak of trauma from violence but likewise of trauma from operative procedures. It is of this latter type of cases in which we are interested while considering Post-Operative Manifestations of Syphilis.

The following case reports are given in brief outline in order not to burden you with boresome details:

Case 1. F. G., 62 years of age, farmer, married. Was admitted to the hospital with Arteriosclerotic gangrene of right foot. During the general examination a mild hypertrophy of the heart was found which was corroborated by a skiagram.

The offending member was amputated below the knee. He recovered from the anesthetic without difficulty and his post-operative course was uneventful until the sixth day when Cardiac symptoms made a painstaking examination imperative. It was then determined that he had developed Aortitis and the skiagram showed a beginning enlargement of the ascending portion of the Aorta. This enlargement had not shown on the pre-operative film. His Wasserman was positive.

Case 2. P. L. Negro, female; 38 years of age. A sub-total hysterectomy was done for large fibroids. The case was a perfectly clean one. After the operation there was no indication of any infection of the incision either locally or constitutionally. Her recovery was considered to be perfect until the tenth day after the operation, on the removal of the silkworm retention sutures the whole wound fell open including the peritoneum, so that one could look with unobstructed view into

the abdominal cavity. Secondary suturing was done and a Wasserman was made, which was four plus. Specific treatment was instituted with very favorable results following.

Case 3. C. P. M. White, male. Laborer, 41 years of age. Entered hospital for Acute Suppurative Appendicitis. His post-operative course was not remarkable until the seventh day when he developed a condition which was at first thought to be Cerebral hemorrhage with hemiplegia. But because of his age a most thorough physical examination was made which revealed to us that he was suffering from Cerebral endarteritis of syphilitic origin. The Wasserman was four plus. Anti-syphilitic treatment was instituted with gratifying results.

The following case as reported by Dr. Charles Green Cumston, formerly of Boston (now of Geneva, Switzerland), will be of interest. The patient, male, age not stated, married and the father of four children, one of whom died at the age of three weeks, had always been well. Three years ago he sustained a fractured rib in railroad accident. Two years after this he noticed a lump the size of a pea, at the point where he had been injured, which caused him to consult a physician, who informed him that the Costal Cartilage had thickened. The tumor began to grow rapidly and upon the advice of his physician, the patient entered the surgical clinic. He looked fairly well at this time. In the right axillary line, over the fourth, fifth and sixth ribs, was a tumor about the size of a fist. The skin covering it appeared to be in a condition of chronic inflammation. The consistency of the growth was firm, but its base was not adherent to the underlying structures.

On the day following his admission, under chloroform anesthesia, the tumor was cut down upon and proved to be seated in the pectoralis major; it was removed and, on section was immediately recognized as being syphiloma. The wound was closed. As the microscopic examination verified the diagnosis, the patient was placed upon inunction and after three treatments was discharged, being advised to continue the treatment. The wound healed by first intention.

This case is of interest because the syphiloma arose at the spot where three years pre-

viously a traumatism had been inflicted. Though there was some suspicion that the growth was a gumma of the muscle, on account of its very sudden growth as well as its exposed position operation was resorted to, because removal was deemed the simplest method of cure.

Not infrequently the surgeon has but little choice in the question of operation, but from all this it follows that it is most essential in all doubtful cases to obtain an exact history and make a thorough physical examination. In many of the reported cases which have been operated upon by reason of an erroneous diagnosis, syphilis was found afterwards, when a thorough and more careful examination was made. It is clear that, when looking for such signs some small scar, which was considered as insignificant before the operation, may in reality turn out to be a most important bit of evidence after the operation has been performed. If from history and examination, some grounds are found for believing that there has been a former luetic infection, then specific treatment should be instituted.

PSEUDO-HERMAPHIRODITISM; REPORT OF A CASE

WM. RANDOLPH SMITH, M.D.
Atlanta

In addition to the fact that hermaphroditism is an extremely rare condition, we seldom have an opportunity to accurately determine the character of the internal generative organs in those cases that do come to our notice. In the case that I report herewith this opportunity was accidentally afforded when this patient was brought to the hospital with an acute surgical condition requiring operation.

This was a colored patient, 21 years old who passed ordinarily as a woman. As a child she had played with girls and was interested in dolls. She was the oldest of 3 children, her two sisters having died in early childhood. She knew of no developmental peculiarities in any other member of her family. After she passed her sixteenth birthday she noted at very irregular intervals that she passed a few drops of blood, apparently per

urethra. At such times she was troubled by mild cramp-like sensations in her abdomen, and some soreness just above the symphysis pubis. She also had a peculiar feeling in the region of her urethral opening that she described by saying, "It feels as if something was trying to come out."

The patient has slight sexual desires and at one time lived with a man for about a week, at the end of which period he left her.

She had been troubled with a right inguinal hernia some five or six years. At times this descended into the labia major. She had previous to the night of admission to the hospital always been able to reduce the mass with some difficulty. Invariably the last part to be



Fig. 1. General Appearance of Patient

reduced was what felt like a small spherical object about three-quarters of an inch in diameter. When this "went back" she could feel it slip through something and was conscious of a very sharp pain, and a sickening sensation. On the day of admission to the

hospital her hernia had come down and she was unable to reduce it. She was brought in some few hours thereafter with a strangulated inguinal hernia which was operated upon.

The photographs show the external appearance of this patient. These pictures were taken during convalescence from her operation and do not bring out the fact that the pubic hair followed the male distribution. The urethral opening was at about the middle of the median raphe. There was no evidence whatsoever, of any vaginal opening.



Fig II. Close-up of Genitalia

The internal generative organs suggested an arrested development during fetal life. The uterus was a thin cord-like structure with a biocornuate arrangement and looked very much like the uterus of a rabbit. There was a small pedunculated fibroid about one inch in diameter on the upper portion of the right horn. The tubes were represented by two thin fibrous cords at the distal ends of which were the gonads. These in appearance suggested small atrophic ovaries. Nothing suggestive of prostate could be palpated in this patient.
362 Peachtree St.

ACUTE CARDIAC DILATATION

J. H. Clark, Philadelphia (Journal A. M. A., July 2, 1927), reports three deaths occurring in patients shortly after intravenous injections of 10 per cent dextrose solution, and one after physiologic sodium chloride solution. Of the two patients receiving dextrose solution, each experienced chills about twenty minutes after the injection. Their pulses be-

came irregular and feeble, and they died within four and nine hours after the injection. One had received previous injections of dextrose solution without exhibiting such phenomena.

THE RECURRENT NUCHAL ACHE IN CHRONIC MALARIAL CHOLECYSTOSTASIS

GEO. MASSALON MURRAY, M.D.

Atlanta

This recurrent nuchal ache of chronic malarial cholecystostasis is a characteristic sensation of discomfort or pain occurring and recurring periodically with more or less frequency or severity in the individual in the posterior cervical region about the level of the lower limit of the hair—commonly referred to as the nape of the neck.

The term "Chronic Malarial Cholecystostasis" is by no means to be regarded as a solitary, isolated condition due to chronic malarial infection, but is rather an emphasized phase of chronic malaria in the individual involving the gall bladder and affecting the normal physiological function of that organ to a more or less degree. This abnormal condition—when it occurs—either produces so frequently and insistently an ache, or is associated so often and so intimately with such a sensation in the region of the nape of the neck, that as a guiding symptom it may serve to locate the existing, emphasized condition and thus enable one to extend relief more promptly to the individual. On the other hand, when the diagnosis of the primary morbid condition of chronic malaria has not been made, as a symptom it may prove a most valuable aid in leading to an earlier, more accurate and complete diagnosis. This characteristic nuchal ache is so closely and so often associated with gall bladder involvements of malarial etiology that vary in degree from a stasis to a chronic cholecystitis—with or without the presence of stones—that to my mind it indicates that the metamorphosis from stasis of gall to stones is but one of sequence; and that the process at any stage is due more or less to altered meta-

bolism, interference with the normal physiologic change and interchange of gall bladder function, and a resultant biliary stasis—all consequent to the depravity of the blood caused primarily by this specific malarial infection when present.

The gall bladder eases with infection, or infection with the presenee of stones, give most frequently a history of the recurrent nuchal ache over a protracted period which often dates back many years, even antedating the indictment of the gall bladder infection,—the majority of all such cases giving a history of malaria in the foreground.

In degree, the recurrent nuchal ache varies from a sense of tightness, tension or drawing where simple measures, such as massage, warm or hot applications afford relief to the more violent or excruciating paroxysms when, in many instances, anodynes give slight—if any—comfort.

The periodicity varies from slight or violent aches at wide intervals to slight or violent ones at shorter periods. The paroxysms spend themselves only to recur with greater or less severity on suspension of—or too early discontinuance of—remedial measures; or they precipitated by some factor calculated to debilitate the individual,—indicating to me the continued presence of the underlying specific malarial infection and the resultant depraved blood state, as well as an abnormal gall bladder condition which they induce.

The intervals of cessation may vary from hours, days, weeks or months, or may not make their reappearance for much longer periods; but though of varying degree and periodicity they recur, nevertheless, true to form and locality. The most striking characteristic of this recurrent nuchal ache is its return, always running true to form.

The duration of the ache may vary from short attacks to protracted paroxysms.

CONCLUSION:

(1) From the very frequent association of chronic malaria as a precursor in so many abnormal gall bladder conditions ranging from cholecystostasis to gall bladder infection—with or without the presence of stones—associated with this frequently recurring ache in the nape of the neck, it is my belief that the symptom—when it occurs—may be ac-

cepted as almost pathognomonic of gall bladder involvement of some degree; and, in the many conditions where chronic malaria has not been recognized, this symptom may serve as a valuable aid in promptly or *finally* indicting that elusive, insidious and obstinate infection.

(2) Furthermore, it is my opinion that the nuchal ache is precipitated by the superadded poisoning induced by the abnormal behavior of the gall bladder and the resultant stasis occurring and recurring in that affected organ, to an existing systemic infection and consequent intoxication of evident origin.

TREATMENT OF SUPERFICIAL MALIGNANCIES BY COMBINED METHODS*

J. W. LANDHAM, M.D.

Atlanta

Superficial malignancies offer a better chance of early diagnosis and plans of treatment than deep seated lesions. Great strides have been made in an educational way in reference to the importance of visible lesions that resist the ordinary home remedies of treatment, but there still remains in the minds of the public considerable doubt as to what course to pursue when a skin lesion has resisted the ordinary forms of home treatment. A great many of these cases, even following the publicity that has been carried forward for several years by the American Commission for the Control of Cancer and the efforts of various civic organizations, still go to the men using plasters and pastes for the treatment of superficial malignancies.

Many of these lesions are curable by any adequate method of cautery or tissue destruction, but the greater number are grossly undertreated or are treated so much that there is permanent impairment of function of vital structures. An ideal situation will not exist until the public has been educated to the extent that it will seek medical advice concerning any superficial lesion that has not healed following the ordinary treatment of home remedies for a period of a few weeks.

Many cases are seen at present involving

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

such structures as the mouth, lower lip and the canthi of the eyes that have been present for months and some for years without any medical treatment. Such a condition is deplorable and indicates a lack of educational efforts or a very decided inherent procrastination on the part of the public.

One may easily understand why an individual with a concealed lesion may hesitate for a time to seek medical advice on account of modesty, but one afflicted with a superficial lesion on an exposed surface has no such reason for failure to consult the family physician.

Superficial malignancies occur more often in males than females, the proportion being about 3 to 2 in favor of the former. The average age is 56.7 years and farmers are more susceptible than men following other occupations. Previous mole, wart, pimple, eczema, scab or ulcer are present in about 40% of the cases. Broders reports 96.28% of all superficial malignancies occur above the clavicles. Tabulation of records of the cases treated by the author during the 5-year period between 1918-1923 show that 92% of the lesions occurred above the clavicles. The exact locations are as follows: Face, 45; lip, 12; ear, 6; nose, 28; larynx, 3; eye, 6; neck, 9; antrum, 3; tongue, 3; forearm and hand, 10; chest, 3; penis, 4; skull, 2; axilla, 1; mouth 10.

A classification of the lesions treated admitting that biopsy is strongly condemned and that the diagnosis has largely been clinical is as follows: Squamous cell, 46; basal cell, 100, and melanotic, 2.

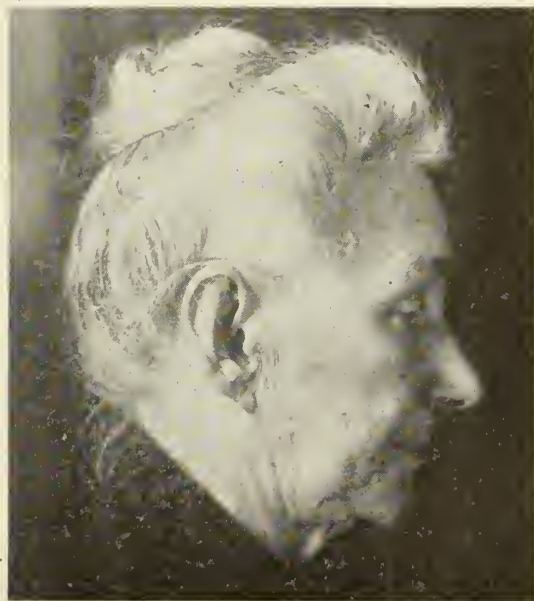
Biopsy has not been a routine procedure on patients presenting themselves at the office for diagnosis because the clinical cure of the patient is far more important than scientific diagnosis with a probability of subjecting the patient to a hazard that cannot be overcome.

A physician who delays giving diphtheria anti-toxin to a patient who clinically has diphtheria until he receives a positive report of a culture examination is guilty morally of malpractice; a physician who does nothing for a patient who clinically has a malignancy until a microscopical examination has been made of a section of the suspected lesion is guilty of the same offense.

If biopsies are routinely made for ultra-scientific reasons the area surrounding the section to be taken should be treated by electro-coagulation or the cautery knife. This will prevent many cases of metastases and will not cause any marked delay in the healing of the lesion. Frozen section examinations which are very unreliable must often be resorted to in internal lesions, but in external lesions such examinations are not emergencies.



Melanoma of Temple Undergoing Malignant Changes Before Treatment



Results Obtained Following Treatment



Ulcerating Type of Epithelioma of the Lower Lip
Before Treatment



Results Obtained Following Treatment
Note Change in Facial Expression

The treatment of superficial malignancies is divided into prophylactic and curative. The prophylactic treatment consists of the re-

moval of all pigmented moles, warts and areas of keratosis that may be the site of irritation or inflammatory reaction. Carious teeth, badly fitting plates, irritation from pipe smoking or the use of tobacco should be eliminated. The curative treatment carried out to secure the best results includes the choice or combination of well accepted methods. More than 2000 years ago Hippocrates uttered the following aphorism: "Those diseases which medicines do not cure, iron (the knife) cures; those which iron cannot cure, fire (the cautery) cures and those which fire cannot cure are to be reckoned wholly incurable." Therefore for a period of over 2000 years we have added only two additional agencies, X-ray and radium, to our armamentarium in the treatment of malignancies.

At present we are using surgery, X-ray, radium and surgical diathermy in the treatment of superficial malignancies. Surgery has given no greater percentage of cures than the other methods and has not obtained as good cosmetic results. A combination of methods, X-ray, radium surgery and surgical diathermy is unquestionably the best course to pursue in the management of these cases.



Epithelioma of Lip Before Treatment



Results After Treatment

It has been found that heat applied at a temperature of 120° F. to 140° F. will destroy cancer cells; whereas healthy tissue will live in a temperature of 160° F. All hypertrophic and pigmented lesions should be first treated by electrodesiccation or electrocoagulation to prevent metastases and to limit the tissue destruction that would result from a sufficient amount of irradiation to act as a cauterizing agent. Most ulcerated lesions can be cured with much less irradiation if they are treated first by electrodesiccation.

The best results will not be obtained in the treatment of malignancies without resorting to a combination of methods. Frequently it is necessary to use all of the available methods in order to accomplish a cure.

In the series of cases forming the basis of which this paper is written all the lesions of the larynx, tonsil, mouth, penis and pigmented lesions in my series have been treated by a combination of diathermy and irradiation.

Malignancies of the lip, mouth, tongue, tonsils, larynx and penis have all been treated with radium applied in contact with the lesions supplemented by X-ray treatment over the regional lymphatics.

Mortality statistics of this series of malignancies show the following: Face, 6 $\frac{2}{3}$ %; lip, 16 $\frac{2}{3}$ %; nose, 3 $\frac{4}{7}$ %; larynx, 66 $\frac{2}{3}$ %; antrum, 33 $\frac{1}{3}$ %; tongue, 66 $\frac{2}{3}$ %; penis, 50% and mouth 30%.

Good cosmetic results were obtained in all the other cases in this series. Photographic records are made as a routine procedure before and after treatment of all superficial malignancies.

SUMMARY AND CONCLUSION:

(1) Much remains to be accomplished in the education of the public in reference to malignancy. This should be pushed relentlessly.

(2) Prophylactic measures should be in the minds of physicians at all times and the patient should be advised accordingly.

(3) Biopsies are condemned.

(4) It is safer to overtreat superficial malignancies than to run the risk of undertreating them in an effort to obtain good cosmetic results.

(5) Combined methods of treatment are often necessary in order to accomplish the best results.

DISCUSSION ON PAPER OF DR. LANDHAM

Dr. Robert Drane, Savannah: I did not have the opportunity to read Dr. Landham's paper before coming here. However, I agree with him so thoroughly that it is not necessary for a general discussion of this paper. I wish to put seamen against farmers as having superficial malignancies of the face. In my experience they are just as frequent as in the farmer. It is those people who are exposed to the elements who have this condition most frequently. I feel it is up to us practitioners to diagnose and treat these conditions. Delay is more apt to favor metastases. It is better to treat them and treat them hard. The skin men hesitate to give big doses. I treat them hard. We know how much they will stand with a skin like this. Most of them we can diagnose. Our duty is to treat the patient. Our common sense dictates that we can apply no selected treatment. The base or periphery is what we are after. Knock it down and treat the base either with radium or X-ray. Treat the draining lymphatics and you will get away with most of them.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to Welfare of Medical Profession of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

July, 1927

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

PRESIDENT'S MESSAGE

I wish to thank the members of the Medical Association of Georgia for the honor they have conferred on me in elevating me to the high office of presidency of the Association. This mark of esteem and confidence, while feebly deserved, is very sincerely appreciated.

It is of great importance just at present to call your attention to two bills that the Medical Association of Georgia is endeavoring to have enacted into laws. They are the establishment of the Basic Science Law, the other the nomination of members of the State Board of Medical Examiners, the Medical Association of Georgia nominating three physicians from which the Governor appoints one of the three. This same privilege is accorded to the state associations of pharmacists, dentists, and nurses.

The Committee on Public Policy and Legislation headed by Dr. Charles E. Waits, its able and determined Chairman, is doing most

excellent work but needs the genuine and active support of every member of the Association. If this help is not promptly forthcoming it is doubtful if our desirable and very essential legislation will favorably pass the general assembly.

Both bills are constructive and fair, and very necessary for organized medicine of our state to function in a normal manner, thereby allowing us to measure up to our full responsibility of giving to the state health and protection against the various diseases that are prevalent.

Georgia is blessed with not only one of the best organized state Medical Associations in the South, but its organization and the spirit of good fellowship that prevails amongst its members compares very favorably with any other state medical association in America. Let's get together and show some virility, it is needed just at this time. Our medical legislation must pass, therefore immediately wire—do not write as legislators and senators are too busy to read letters—to your representatives and urgently and insistently request the support of our two bills. Our two bills are known in the House as bills 202 and 203, in the Senate they are numbers 61 and 62. In wiring about the bills and asking support it will be advisable to refer to the numbers rather than the captions.

Act now, do not delay. As requested, wire your representative and see that every physician in your county or district society does the same thing. Only by concentrated and prompt action will these bills pass, as there is strong opposition from sectarian and cult practitioners, this opposition is strengthened by a good fat purse of coin.

W. A. MULHERIN, M.D., President
Medical Association of Georgia.

SOME THOUGHTS CONCERNING SOCIAL GATHERINGS OF MEDICAL MEN

At the occasional social meetings of various medical societies and associations of this state, it has been the custom to indulge in an interchange of both reason and wit, while our bodies were served with acceptable refreshments.

This custom of intelligent human beings is ancient in the extreme, for antiquarian researches into the gastronomic history of the Chinese, Hindoos, Chaldeans, Arabians, early Christians and other nations have taught us that in the remotest twilight of the past, such acceptable meetings, especially in the celebration of certain happy or unhappy events, were in vogue.

Probably the first real celebration of this sort was given by Abraham in commemoration of his son's impending death, and in which, by the conversion of a fat beast into a savory meal, he apparently instituted the feast now known as barbecue.

The gathering together of these pleasant and congenial bands has been brought mainly to afford diversion to those of us whose daily labors allow but little relaxation, but who can spare an occasional day or evening for the exchange of ideas and the promotion of good-fellowship.

To this end we freely draw from sources both ancient and modern; both solid and nebulous; from history and fiction; from the sublime and ridiculous. I might say in the words of St. Paul: "To the Greeks and to the barbarians, to the wise and to the unwise, I am a debtor."

Ethnologists teach us that savages neither laugh nor weep; while more than one explorer has marveled at the absolute seriousness of the Esquimaux. Dr. Gouley, a gentle gastronomic philosopher, contends that "Among civilized men, the lack of receptivity of pleasantry, the inability to give expression to jollity, and the incapacity of appreciating the comical side of a question, constitutes a real sluggishness intensified by disordered digestion."

He also defines wit as the vivacious utterance of congruous ideas, so combined as to please and surprise. That English essayist, Crabbe, regards wit in the light of a genus to which he accords three species, humor, satire and irony. To quote him: "Wit, like wisdom, signifies knowledge, but in the usually accepted sense, is a spontaneous faculty, a natural gift. Reflection and experience supply us with wisdom; study and labor supply us with learning; but wit seizes with an eagle eye that which escapes the notice of a deep

thinker, and elicits truths which are in vain sought for with severe effort. Wit, as distinguished from humor, may consist of a single brilliant thought; but humor runs in a vein; it is not a striking, but a pleasing flow of wit."

Irony and sarcasm are scarcely tolerable among friends; and happy am I to say that neither have been heard at the delightful gatherings of our members. "A sarcasm," said Sydney Smith, "is like a sword-stick; it appears at first sight to be more innocent than it really is, till, all of a sudden, there leaps something out of it—sharp and deadly—which makes you tremble and recoil."

While we have indulged in moderation in both the pleasures of Epicures and our Lady Nicotine, we have at no time forgotten the wise precepts of Hygeia; nor have we permitted the mere gratification of bodily hunger and thirst to interfere with the giving and receiving of that more highly esteemed mental pabulum, without which our repasts might have proved stale, flat and unprofitable.

Let us then cherish these happy occasions, each one bringing his contribution, seasoned with wit, toned with humor, braced with philosophy, supported by knowledge, illumined by friendship, and sharpened by genial friction of contending intellects in harmonious discourse.

Thus may each meeting become in fact and in truth a feast of reason and flow of the soul; and to this end these random observations are offered by one who values most highly the fraternal bonds so delightfully cemented.

NILES.

STATE BOARD OF HEALTH

BUREAU OF VITAL STATISTICS

Atlanta, Georgia

The State Board of Health announces that during the month of May there were reported 2,866 deaths corresponding to a death rate of 10.8 per 1,000 population. Although this death rate is about 7 per cent lower than the rate (11.5) for May, 1924, yet 42 per cent of the specified causes show increases in their

GEORGIA STATE BOARD OF HEALTH

BUREAU OF VITAL STATISTICS

MORBIDITY AND MORTALITY REPORT
FOR MONTH OF MAY, 1927

*(Figures for 1927 are provisional, subject to correction)

All Causes	2866				1084.9	1148.2
Anchylo-						
stomiasis	9	3.4				
Automobile						
Accidents	* 25				9.5	7.4
Cancer						
(All Forms)	* 115				43.5	47.9
Cerebrospinal						
Meningitis	2	0.8			0.8	0.8
Chicken Pox	98	37.1	20.3		0.4	
Diphtheria	30	8	11.4	21.8	3.0	2.3
Dysentery	175	61	66.2	16.0	23.1	19.5
Gonorrhea	162	3	61.3	30.8	1.1	0.8
Heart Disease	* 260				98.4	109.1
Homicides	* 31				11.7	17.1
Influenza	348	77	131.7	4.7	29.1	33.5
Lethargic						
Encephalitis	6				2.3	0.4
Malaria	116	12	43.9	18.7	4.5	8.2
Measles	476	22	180.2	32.3	8.3	19.9
Mumps	114		43.2	49.9		
Nephritis	* 310				117.3	104.0
Pellagra	59	69	22.3	0.8	21.6	12.1
Pneumonia	91	169	34.4	33.5	64.0	77.5
Poliomye-						
Rabies						0.4
Scarlet Fever	48	4	18.2	16.4	1.5	0.8
Septic Sore						
Throat	23		8.7	1.6		
Smallpox	110	2	41.6	86.1	0.8	2.3
Suicides	* 16				6.1	8.6
Syphilis	137	47	51.9	34.3	17.8	14.4
Tetanus		11		0.8	4.2	1.2
Tuberculosis						
(All Forms)	67	217	25.4	17.9	82.1	101.7
Typhoid Fever	106	51	40.1	4.7	19.3	7.4
Whooping						
Cough	193	27	73.1	17.9	10.2	28.1

rates compared with those of May, 1924.

Since the death rate from all causes in May, 1927, shows a decrease compared with the corresponding rate of 1924 we must not permit our optimism over the general health conditions in Georgia to cause us to become careless in our fight against preventable dis-

eases. This is the beginning of the season when the death toll from typhoid fever increases and already the death rate for this month shows an increase of 250 per cent over last month. That in itself should be sufficient warning for all to redouble their efforts against this disease. In addition to this seasonable increase the rate for May of this year shows an increase of 160 per cent over the corresponding rate of 1924.

GEORGIA TUBERCULOSIS ASSOCIATION

A dinner was given by the Georgia Tuberculosis Association and the Atlanta Tuberculosis Association in honor of Dr. L. B. McBrayer of the consultant staff of the National Tuberculosis Association at the Henry Grady Hotel, Friday evening, June 24th.

Dr. McBrayer came to Atlanta at the invitation of the Georgia Tuberculosis Association to give a series of lectures to the nurses in the Emory Summer School on the subject of Tuberculosis. Dr. McBrayer is largely responsible for the splendid record North Carolina has made in the care of the tuberculous. He was Superintendent of the State Sanatorium for a number of years and at present Managing Director of the State Association.

During his week's visit, in addition to the lectures at Emory, he was the guest of the City Club Thursday at the lunch hour and gave an address on the Quest of Health.

Other guests of the two Associations at the Friday evening dinner included members of the medical staff of the Atlanta Association, headed by Dr. Z. S. Cowan, Messrs. P. E. Glenn, L. D. Sharp, and Kendall Weisiger, Directors of the local Association, Miss Mary Dickinson, Executive Secretary, and members of the nursing staff headed by Miss Nelle Brown. Dr. Allen Bunce was present as a member of the local staff and a representative of the Medical Association of Georgia, and the State Board of Health was represented by Dr. T. F. Abercrombie, Secretary, and Dr. M. E. Winchester of his staff. Other local guests were Dr. R. E. Wager, Dean of Emory Summer School, Dr. R. H. Oppenheimer, Superintendent of Wesley Memorial Hospital, Dr. I. T. Catron, and J. P. Faulkner, Managing Director of the State Association.

The out-of-town guests were Dr. C. L. Middlebrooks of the Athens Sanatorium, Mr. Lee M. Happ, head of the tuberculosis work in Macon, Dr. E. W. Glidden, Superintendent of the State Sanatorium at Alto, who is also President of the Georgia Tuberculosis Association and who presided at the dinner.

Following the dinner, short reports of the local tuberculosis work were given by Dr. Cowan and

others. Dr. Middlebrooks and Mr. Happ reported on their work in Athens and Macon.

The chief address was given by Dr. McBrayer who spoke interestingly of the progress in tuberculosis work and in conclusion laid great stress upon the need of a thorough examination of the patient in an effort to determine not only to what extent he is afflicted with tuberculosis but to find out whether he has other diseases that might prove a serious handicap to his recovery.

Dr. Bunce, at the conclusion of the program, spoke of the interest of the Medical Association of Georgia in the program of the State Board of Health and the Tuberculosis Associations, and outlined the plan of the Medical Association to co-operate with the State Board in its appeal for better support for the health program.

FAULKNER.

SCARLET FEVER

ACQUIRED ACTIVE IMMUNITY

Protection against scarlet fever may be induced by the subcutaneous injection of the toxin. The Scarlet Fever Committee recommends five subcutaneous injections of 500, 1,500, 15,000 and 20,000 skin test doses of toxin as a minimum, spaced at intervals of one week. The first injection must not exceed 500 skin test doses, since the Dicks found that initial injections of more than this amount frequently give quite severe reactions, with headache, nausea and vomiting, and also a scarlatiniform rash. Young and Orr recommend three injections of 500, 5,000 and 30,000 skin test doses, respectively, with an interval of two weeks between injections.

It is too soon to speak positively of the degree and duration of immunity conferred. In a series of retests Park has found that in a group of immunized children the Dick Test was still negative at the end of a year. At the end of eighteen months some of the same children showed a faintly positive Dick test with a strong toxin. From these results Park believes that it is safe to assume a conferred immunity of at least two years. The method is useful in epidemics, in institutions, in families and in special emergencies, but is hardly ready to broadcast for general public adoption.

(Copied from Rosenau "Preventive Medicine & Hygiene, p. 223.)

SYPHILIS: A CAUSE OF HEART FAILURE

Syphilitic aortitis is one of the most common manifestations of latent syphilis found at autopsy. The well known morbid changes are characterized by perivascular infiltrations about the vaso-vasorum of the adventitia and subsequent changes in media and intima. When the root of the aorta is involved an obliterative endarteritis extends to the small vessels supplying the margins of the valve leaflets and initiates a chronic inflammatory process which ultimately results in fusion of the lateral margins with aortic intima. In this manner and by dilatation of the aortic ring aortic insufficiency and resultant cardiac hypertrophy occurs.

R. W. Scott¹ studying 500 cases of heart disease coming to autopsy at the Cleveland General Hospital, found that hypertrophy and dilatation of the heart was probably due to such aortic involvement in 75 cases. Seventy-three of these had shown clinical evidence of aortic insufficiency and in two without such clinical manifestations the lumen of both coronaries were markedly reduced in size. Examination of the myocardium of the 75 cases showed no changes in musculature or interstitium other than those found in hypertrophied hearts from any other cause.

He concludes, therefore, that latent syphilis is an important cause of heart failure, not because of its direct damage to the heart muscle, but only when it attacks the root of the aorta and leads to aortic regurgitation and coronary occlusion which imposes a burden upon the heart that ultimately results in death.

(1) Scott, R. W.: Latent Syphilis as a Cause of Heart Disease, *Annals of Clinical Medicine*, Vol. V, No. 11, pp. 1028, 1927.

164,002 PHYSICIANS IN NEW AMERICAN MEDICAL DIRECTORY

For more than twenty years the American Medical Association has been publishing a directory of the medical profession. Ten editions have appeared, the last one (1927) being just off the press.

The first edition (1906) contained 128,171 names of physicians in the United States, its dependen-

cies and Canada. The new Tenth Edition includes 164,002 names. There is an increase of 2,644 over the previous edition. If the Directory were merely a list of names and addresses of physicians it would not have great significance. That information is valuable, but of far greater value is the fact that the Directory gives proof of the right of each physician listed to practice medicine—namely, time and place of graduation and year of license. In addition, society membership, specialty and office hours are included. Capital letters indicate those who are members of their county medical society, and a special symbol follows the names of those who are Fellows of the American Medical Association.

The information concerning hospitals and sanitariums of the United States is another valuable and extensive feature. Descriptive data appears following the names of 7,816 hospitals and sanitariums such as type of patients handled, capacity, and name of superintendent or director.

The list of physicians in each state is preceded by a digest of the laws governing medical practice in that state; members of licensing board; state board of health; names of city, county and district health officers; officers of constituent state associations and component county and district medical societies. The book, in short, is one vast source of reliable data concerning the personnel of the medical profession and the institutions and activities closely related to it. It contains 2,575 pages and is sold for \$15.00. Published by the American Medical Association, 535 North Dearborn Street, Chicago.

TOXIN-ANTITOXIN

GEORGIA PEDIATRIC SOCIETY

Toxin-Antitoxin has been proven to be harmless and effective in preventing diphtheria. Over 300,000 children in New York alone have received this treatment without a single bad result being reported. The number of cases and the number of deaths from diphtheria have decreased markedly in communities where intensive campaigns have been carried on.

These facts presented at the annual State Medical meeting in Albany aroused a great deal of interest. As a result of this, the Georgia Pediatric Society voted to ask the profession of Georgia, The Board of Health and the Parent-Teacher Association to join in a campaign to promote the use of Toxin-Antitoxin in immunization against diphtheria.

All children under ten years, from 6 months

up, as you probably know, should have the treatment. It is given in three doses of one cubic centimeter one week apart, subcutaneously. A period of six months elapses before immunity is assured. Ninety to ninety-five per cent of cases injected receive complete immunity. The protection continues for at least ten years and probably throughout life.

W. A. MULHERIN, M.D.

BENJAMIN BASHINSKI, M.D.

PAUL EATON, M.D.

Committee on Immunization
Against Diphtheria.

LENS PROTEIN AND ITS FRACTIONS

Alan C. Woods and Earl L. Burky, Baltimore (Journal A. M. A., July 9, 1927), reports on experiments in the preparation of serologically pure fractional antigens of the crystalline lens, and observations on the chemical and immunologic properties of these fractions. New methods for the preparation of whole lens protein have been devised. These new preparations contain a larger relative amount of alpha crystallin and less beta crystallin than did the older preparations. It was found impossible to produce serologically pure fractional antigens by the methods outlined by other investigators. A method of preparing serologically pure alpha and beta antigens was then devised by which such pure antigens can be prepared with definite regularity. The basic point in this method is the utilization of the iso-electric points of the alpha and beta crystallins. Study of these serologically pure fractional antigens shows that they are organ specific and not species specific, thus supporting Uhlenhuth's observations. The pure beta crystallin fraction shows a tendency to spontaneous precipitation within the normal hydrogen ion range of body fluids. The presence of alpha crystallin prevents this spontaneous precipitation. This observation, coupled with the earlier observations of other investigators, makes possible an attractive hypothesis concerning the etiology of senile cataract.

District and County Societies

District Editors

- | | |
|---|--|
| 1. Long, W. V., Savannah.
2. Watt, C. H., Thomasville.
3. Greer, Chas. A., Oglethorpe.
4. Peniston, Joe B., Newnan.
5. Pitts, Jno. B., Atlanta.
6. Thompson, O. R., Macon. | 7. McCord, M. M., Rome.
8. Carter, D. M., Madison.
9. Bennett, J. C., Jefferson.
10. Lee, F., Lansing, Augusta.
11. W. F. Reavis, Waycross.
12. Cheek, O. H., Dublin. |
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1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.
2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926.
3. Dougherty County, Dr. I. M. Lucas, Albany, Dec. 15, 1926.
4. Chattooga County, Dr. W. B. Hair, Summerville, Dec. 16, 1926.
5. Macon County, Dr. F. M. Mullino, Montezuma, Dec. 30, 1926.
6. Lamar County, Dr. Jno. M. Anderson, Barnesville, January 6, 1927.
7. Pike County, Dr. M. M. Head, Zebulon, January 25, 1927.
8. Rabun County, Dr. J. A. Green, Clayton, January 27, 1927.

9. Murray County, Dr. E. H. Dickie, Chatsworth, January 27, 1927.
10. Taylor County, Dr. J. C. Hind, Reynolds, January 29, 1927.
11. Jasper County, Dr. E. M. Lancaster, Shady Dale, February 9, 1927.
12. Terrell County, Dr. Logan Thomas, Dawson, February 24, 1927.
13. Butts County, Dr. J. Lee Byron, Jackson, March 30, 1927.
14. Franklin County, Dr. Stewart D. Brown, Royston, April 11, 1927.
15. Ware County, Dr. K. McCullough, Waycross, April 12, 1927.
16. Wayne County, Dr. M. N. Stow, Jesup, April 12, 1927.
17. Stephens County, Dr. C. L. Ayers, Toccoa, April 18, 1927.

COUNTY SOCIETIES REPORTING FOR 1927

LOWNDES COUNTY MEDICAL SOCIETY

The Lowndes County Medical Society announces the following officers for 1927:

- President—T. E. Pennington, Naylor.
 Vice-President—J. M. Smith, Valdosta.
 Delegate—J. M. Smith, Valdosta.

JACKSON COUNTY MEDICAL SOCIETY

The Jackson County Medical Society announces the following officers for 1927:

- President—F. M. Hubbard, Commerce.
 Vice-President—H. E. Crow, Talmo.
 Secretary-Treasurer—J. C. Bennett, Jefferson.
 Delegate—Ralph Freeman, Hoschton.
 Alternate—C. B. Lord, Jefferson.

Board of Censors—J. C. Verner, L. C. Allen and W. C. Kennedy.

STEPHENS COUNTY MEDICAL SOCIETY—100%

The Stephens County Medical Society announces the following officers for 1927:

- President—E. F. Chaffin, Toccoa.
 Vice-President—Alexander Craig, Toccoa.
 Secretary-Treasurer—C. L. Ayers, Toccoa.
 Delegate—J. H. Terrell, Toccoa.
 Alternate—J. E. D. Isbell, Toccoa.

Board of Censors—J. H. Terrell, E. F. Chaffin and J. E. D. Isbell.

GORDON COUNTY MEDICAL SOCIETY

The Gordon County Medical Society announces the following officers for 1927:

- President—Z. V. Johnston, Calhoun.
 Vice-President—B. W. Fite, Reseca.

Secretary-Treasurer—R. B. Chastain, Calhoun.

Delegate—W. R. Richards, Calhoun.

Board of Censors—W. R. Barnett and J. M. Erwin.

LAMAR COUNTY MEDICAL SOCIETY

The Lamar County Medical Society announces the following officers for 1927:

- President—J. M. F. Barron, Milner.
 Vice-President—C. H. Willis, Barnesville.
 Secretary-Treasurer—Jno. M. Anderson, Barnesville.

Delegate—J. M. Rogers, Barnesville.

Alternate—J. A. Corry, Barnesville.

Board of Censors—J. A. Corry, C. E. Suggs and D. W. Pritchett.

BULLOCH-CANDLER COUNTIES MEDICAL SOCIETY

The Bulloch-Candler Counties Medical Society announces the following officers for 1927:

- President—A. Temples, Statesboro.
 Vice-President—B. B. Jones, Metter.
 Secretary-Treasurer—W. E. Floyd, Statesboro.
 Delegate—A. Temples, Statesboro.
 Alternate—J. M. McElveen, Brooklet.
 Board of Censors—A. J. Mooney, B. B. Jones and W. E. Simmons.

GLYNN COUNTY MEDICAL SOCIETY

The Glynn County Medical Society announces the following officers for 1927:

- President—Jno. A. Dunwoody, Brunswick.
 Vice-President—R. E. L. Burford, Brunswick.
 Secretary-Treasurer—J. W. Simmons, Brunswick.

Georgia State Association of Graduate Nurses

OFFICERS

President.....	Miss Lucy M. Hall, R.N. 522 East 40th St., Savannah, Ga.	2nd Vice-President.....	Miss Mae E. Burges, R.N. 1108 East Henry St., Savannah, Ga.
1st Vice-President.....	Miss Margaret E. Dorn, R.N. 1117 Telfair St., Augusta, Ga.	Secretary.....	Mrs. Alma E. Albrecht, R.N. Georgia Infirmary, Savannah, Ga.
Treasurer.....	Miss Jane VanDeVrede, R.N. 105 Forrest Ave., N.E., Atlanta, Ga.		

"Nursing is carrying the responsibility for adapting and co-ordinating the conditions immediately surrounding a patient so as to re-establish and protect his health." Martha Russell, R.N.

THE PHYSICIAN

Forgetting self, he heeds your call
Nor cares he what the hour;
Your anxious heart is filled with hope
You feel his hidden power.
He enters softly—lest you sleep—
And sits beside your bed,
He scans your face, a tender hand
Is placed upon your head.
His stethoscope to beating heart,
Percussion over lung,
Blood pressure, pulse and temperature,
A brief view of your tongue,
A question here, a symptom there
Make diagnosis plain;
With potion, powder, salve and pill
He thwarts the Reaper's game.

—MARGARET HELEN FLORINE, R.N.

THE NURSE

With magic touch to fevered brow,
To ease your pain her only thought,
Earnest, quiet, swift and calm,
Divining wishes, praise unsought,
On silent, willing feet, she goes
Your perfect comfort first she seeks;
Her only dreams are health for you,
As she her lonely vigil keeps.

Your life! what splendid recompense
For those three golden years she gave!
An autoerat, a selfless soul,
Your stern commander, yet your slave.

—MARGARET HELEN FLORINE, R.N.

PROPOSED LEGISLATION IN NURSING IN THE INTEREST OF THE PATIENT, THE DOCTOR AND ALL CLASSES OF NURSES

There is, perhaps, no closer co-operative service than that of the doctor and the nurse in the interest of the patient. Traditionally, nursing has become the handmaiden of medicine. Where life and death hover in the balance, the single purpose to wrest the one and prolong the other, overshadows all else, and the nurse and doctor stand shoulder to shoulder in the struggle.

Tremendous changes have come to medicine. Science, in yielding up one secret after another in rapid succession, has given the physician many aids in determining diseases

and administering treatments for which he used to depend upon the nurse chiefly.

Her responsibilities have changed greatly, therefore, in the hospitals especially.

There has been a relatively greater responsibility on those who have been responsible for her training, for while these appliances for diagnosis and treatment have been available there, they have not always been available for home conditions. It has been necessary, therefore, to prepare the nurse to meet the advanced facilities of the hospital, and still try to fit this training to the conditions of the rural or urban home, where they were not to be had, and where the resources and skill and ingenuity of the nurse must be the greatest or only aid to the physician.

In this rapid development many institutions have not fully realized these dual needs.

It is this situation which gives rise to much dissatisfaction with the young graduate of our large schools, and an equal dissatisfaction results from the graduate of smaller schools, not prepared to meet advancing standards.

It is largely this fact that makes the nurse from the city school feel inadequate to go to the smaller communities to nurse, and one of the reasons why it is absolutely essential to the nursing needs of our state, which is so largely rural, to have schools of nursing in the smaller communities where the nurse does receive her experience in the care of rural and suburban patients.

An arrangement can be made so she can receive an affiliation in the larger school, which should eminently fit her to serve all needs.

The special hospital schools where mental diseases and tuberculosis cases are cared for can also arrange for affiliations to meet the needs of the student nurse for a general preparation.

The great need for nurses in our rural districts has resulted in many women being forced by circumstances to care for the sick, oft-times to meet an emergency at first, and then, proving adapted to and successful in their service to the doctor and his patient, have continued to nurse professionally. There is at present no way in which such service can be protected against imposition, nor legalized for its contribution to the welfare of the state.

The doctor has a right to expect that in the matter of nursing service to his patients it shall be safe, earnest, honest and devoted service of whatever nature the condition and the economic situation of the patient calls for.

In the interest of such service, the Hospital Committee of the Medical Association of Georgia approached the nurses with suggestions for proposed legislation, which were incorporated into the Nurses' Bill of proposed legislation, and made it unanimously acceptable for endorsement by the Committee on Legislation and Public Policy of the Medical Association of Georgia, and its favorable recommendation for endorsement to the Councilors of the Medical Association of Georgia.

The Councilors unanimously endorsed the Bill, and some individual members were enthusiastic in pledging support to it. Many

doctors have expressed gratification at the general interest shown by the public, and the recognition that the Bill is more largely in their own interest and that of the medical profession, than in the interest of nurses of all classes, though it should prove of advantage to them also in the long run.

The main points of change in the Bill from that now in effect are:

Waiver of six months for certain qualifications so as to not handicap any nurse now practicing in Georgia.

Mandatory registration of all nurses—graduate, practicing under-graduate, or attendant or practical nurses—the while providing for gratuitous nursing of the sick by members of the family or friends, for nursing in emergencies, either individual or of an epidemic nature. Exemption of registration for all hospital attendants.

Annual re-registration at a nominal fee, so as to locate all nursing service in the state rapidly in case of emergency.

Authority granted the Board of Examiners to allow for academic credits to advanced students, or for special preparation in public health, tuberculosis, pediatrics and other experience during the three years' course.

Authority to provide assistance to training schools in the preparation of registrants, etc.

International Council Meets

The International Council of Nurses will hold an "Interim Conference"—between the Congress in Helsingfors, Finland, 1925, and the Congress in Peking, China, 1929—in Geneva, Switzerland, July 27 to 30, 1927. The Affiliated American Nurses' Association will be represented by Clara D. Noyes, R.N., Director, Nursing Service, A.R.C., Washington, D. C., who is first vice-president of the Council, and Miss Lillian Clayton, the president of the A. N. A.

First District, Georgia State Association of Graduate Nurses

The June meeting of the Public Health Section of the First District of the Georgia State Association of Graduate Nurses was held at State Headquarters' office.

Professor Benson of the Department of Law, Emory University, gave a very interesting talk on the history and development of law, and the necessity that the law should interpret the spirit of the times and should not be allowed to grow obsolete, losing the respect of current history.

Twenty-five nurses were present.

The June meeting of the First District of the Georgia State Association of Graduate Nurses was held on the lawn of Blackman's Health Resort. Dr. and Mrs. Blackman, as host and hostess, added greatly to the pleasure and success of the meeting.

The program was under the auspices of the Private Duty Section.

Dr. E. H. Green gave a very interesting talk on private duty, viewed from the doctor's standpoint and from the patient's standpoint. He stated he felt he could qualify in the latter as he is the proud father of a young son, and for the first time saw private duty from the standpoint of the employer.

Dr. Green did not present the problem side of the question of private duty service, but expressed his appreciation and understanding of the difficulties facing the nurse, and the qualities demanded by her arduous service.

Miss Jean Harrell, Chairman of the State Ways and Means Committee, explained the proposed legislative changes in the Nurse Practice Act.

Miss Maud Parsons, Assistant Professor of the Yale University School of Nursing, who is conducting a course in Public Health Nursing at the summer school of Emory University, gave a very interesting talk on the advantages offered by the Yale University School, where graduate nurses for the first time are receiving the B. N., in equal rank with the other professional schools of law, medicine and theology.

Meetings in Second, Third and Fourth Districts

Special meetings are being held in the 2d, 3d and 4th districts of the Georgia State Association of Graduate Nurses, in the interest of proposed nursing legislation, and nurses throughout the state are working definitely for passage of the Bill.

COMMUNICATIONS

DR. J. W. SIMMONS
BRUNSWICK, GA.

Dear Dr. Simmons:

Pursuant to your request I give you the following information taken from the records of this office. This office has given during the past fifteen months a total of 7,695 doses of Toxin-Antitoxin, 55 Immunizing doses of Diphtheria Antitoxin, and 10 doses of Curative Diphtheria Antitoxin. This latter 10 doses being given to charity cases at the request of physicians in charge. We also dispensed 16 doses of Scarlet Fever Antitoxin which were given by local physicians during the past sixty days. You are familiar with the results and reactions of this antitoxin. I do not recall a single instance of a reaction from Diphtheria Toxin-Antitoxin sufficiently severe to warrant medical treatment. Indeed in perhaps ninety-five per cent of the cases there were no reactions whatever. I make this letter statement because of the fact that ninety and one-half per cent of all the school children of Glynn County under ten years of age received this Toxin-Antitoxin and in only one or two instances did they have a reaction sufficient to cause any loss of time from school, and too when we consider that all this was voluntary on the part of the parents and children one can appreciate that the reactions were practically nothing. Regarding the protective and curative Antitoxin we had no reactions whatever from any of the doses except the expected soreness, etc., from trauma. These doses of Toxin-Antitoxin and Antitoxin represent only that given from this office and does not represent the numbers of cases given by the private practitioner. It is interesting to note that we have had only two cases of Diphtheria in our City for the past year and in no instance during the past four years has a child developed the disease who had previously been given Toxin-Antitoxin, neither did we have a case developing from any of the exposures who received the immunizing doses of Antitoxin.

If there is other information I can furnish you please call on me.

Very sincerely,

H. L. AKRIDGE, M.D.,
Commissioner of Health,
Glynn County Board of Health.

March 1, 1927
Brunswick

BEST NOT TO CORRECT LEFT-HANDED CHILD

Attempts to correct left-handedness in children may result tragically, warns Dr. Frank Howard Richardson in the July *Hygeia*. Among the results of such attempts, one of the commonest and most difficult to overcome is stuttering.

Woman's Auxiliary Medical Association of Georgia

OFFICERS

President.....	Mrs. Paul Holliday, Athens	President-Elect.....	Mrs. C. C. Hinton, Macon
1st Vice-Pres.....	Mrs. Marion T. Benson, Atlanta	2d Vice-Pres.....	Mrs. Wm. R. Dancy, Savannah
3d Vice-Pres.....	Mrs. H. L. Rudolph, Gainesville	Cor. Sec.....	Mrs. Guy O. Wheelchel, Athens
Rec. Sec.....	Mrs. J. A. Selden, Macon	Treasurer.....	Mrs. Stewart D. Brown, Royston
Parliamentarian.....		Mrs. James N. Brawner, Atlanta	

Delegates to A. M. A.

Mrs. C. W. Roberts.....	Atlanta	Mrs. H. M. Fullilove.....	Athens
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Delegates to S. M. A.

Mrs. T. L. Holcombe.....	Union Point	Mrs. Frank K. Boland.....	Atlanta
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Alternates

Mrs. Dan Y. Sage.....	Atlanta	Mrs. Chas. E. Waits.....	Atlanta
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THIRD ANNUAL SESSIONS

Delegate to A. M. A.....	Mrs. C. W. Roberts, Atlanta
Delegate to A. M. A.....	Mrs. H. M. Fullilove, Athens
Delegate to S. M. A.....	Mrs. T. L. Holcombe, Union Point
Delegate S. M. A.,	Mrs. Frank K. Boland, Atlanta
Alternate.....	Mrs. Dan Y. Sage, Atlanta
Alternate.....	Mrs. Chas. E. Waits, Atlanta

The third annual meeting of the Woman's Auxiliary to the Medical Association of Georgia was held in Athens, Ga., May 10th to 13th, inclusive, with headquarters at the Georgian Hotel.

Tuesday afternoon and evening the delegates registered and were given cards to the various social functions for their entertainment.

Wednesday morning the delegates met with the executive board at Mell Auditorium. The meeting was called to order by the president, Mrs. C. W. Roberts and she introduced the other officers. The secretary, Mrs. Marion T. Benson, then called the roll by districts and read the minutes of the last meeting held in Albany, Ga., May 12, 1926.

The reports from the district managers were then read and some of them were most inspiring. The eighth district, of which Athens is a member, is the honor district for the past year, and gets the honor banner for new members and new organizations in the district. It has five organizations in the district, which is more than any other district has.

Mrs. Hinton from Macon had a wonderful report of what they had accomplished, and she read a most attractive program which they are following in their work.

The fifth district, which includes Fulton County, is by far the largest organization and the increase

in the membership of the state organization, which has nearly doubled since last year is due largely to the increase in our own membership here in Atlanta. The total membership of the state organization is 604, and the membership of Fulton County is 268.

Under new business, the question of dues to the state auxiliary was brought up and it was voted to let them remain as they are instead of increasing them, and if extra money was needed for its functioning a special tax would be levied upon the component auxiliaries, so much per capita.

The nominating committee appointed by the president with Mrs. Myers of Savannah as chairman read the following nominations, which were voted upon and accepted:

Mrs. Paul Holliday, Athens, President.
Mrs. C. C. Hinton, Macon, President-Elect.
Mrs. Marion T. Benson, Atlanta, 1st Vice-Pres.
Mrs. William R. Dancy, Savannah 2d Vice-Pres.
Mrs. H. Latimore Rudolph, Gainesville, 3d V-P.
Mrs. Guy O. Wheelchel, Athens, Cor. Secretary.
Mr. J. A. Selden, Macon, Recording Secretary.
Mrs. Stewart Brown, Royston, Treasurer.
Mrs. James N. Brawner, Atlanta, Parliamentarian.
Mrs. C. W. Roberts, Atlanta, Delegate to A.M.A.
Mrs. H. M. Fullilove, Athens, Delegate to A.M.A.
Mrs. T. L. Holcombe, Union Point, Delegate to S. M. A.
Mrs. Frank Boland, Atlanta, Delegate to S.M.A.
Mrs. Dan Sage, Atlanta, Alternate.
Mrs. Charles Waits, Atlanta, Alternate.

After the election of the delegates to the American Medical Association, Mrs. Brawner, Chairman of the Resolutions Committee, thanked the Clark County Medical Auxiliary, the members of

the Woman's Club, the schools, colleges and citizens in general for all their courtesies shown the visitors during their stay in Athens.

The social program of the convention included a most delightful luncheon at the Woman's Club, an open-air Health Demonstration on the Campus of the Agricultural College, a tea given by the daughters of Dr. Crawford W. Long, honoring the members of the Medical Association of Georgia and their wives. A very clever and attractive program presented by the State Normal Glee Club and Oratory Departments, Wednesday night, a tea Thursday afternoon at Soule Hall, and a most enjoyable banquet and dance at the Athens Country Club, Thursday night.

The floral decorations for all the affairs were very lavish and beautiful, and shoulder bouquets were furnished for the guests on all occasions.

We were made to feel that Athens had exerted herself to make each individual guest have as delightful a visit as the most important officer. The spirit of co-operation between the Clark County Medical Association and the citizens of Athens as a whole made the convention a success in every sense of the word.

MRS. LELAND BAGGETT,
Delegate from 5th District,
Woman's Auxiliary Fulton County
Medical Society.

CONSTITUENT COUNTY SOCIETIES, 1927

County	President	Secretary
Baldwin.....	Geo. L. Echols Milledgeville.....	H. D. Allen, Jr., Milledgeville
Barrow.....		W. L. Mathews, Winder
Bartow.....	H. B. Bradford, Pine Log.....	A. L. Horton, Taylorsville
Ben Hill.....	C. H. Wilcox, Fitzgerald.....	L. S. Osborne, Fitzgerald
Bibb.....		W. A. Williams, Macon
Blue Ridge.....	J. M. Daves, Blue Ridge.....	C. B. Crawford, Blue Ridge
Bulloch-Candler.....	A. Temples, Statesboro.....	W. E. Floyd, Statesboro
Burke.....	H. J. Morton, Waynesboro.....	R. L. Miller, Waynesboro
Butts.....	A. F. White, Flovilla.....	J. Lee Byron, Jackson
Brooks.....	T. R. Moye, Quitman.....	R. E. McClure, Quitman
Campbell.....	T. P. Bullard, Palmetto.....	A. J. Green, Union City
Carroll.....	D. S. Reese, Carrollton.....	H. J. Goodwyn, Carrollton
Chatham.....	Chas. Usher, Savannah.....	A. A. Morrison, Savannah
Chattooga.....		W. B. Hair, Summerville
Cherokee.....	J. T. Pettit, Canton.....	Geo. C. Brooke, Canton
Clarke.....	P. L. Holliday, Athens.....	Harold I. Reynolds, Athens
Clayton-Fayette.....	G. W. Wallis, Fayetteville.....	H. D. Kemper, Jonesboro
Cobb.....	J. E. Lester, Kennesaw.....	R. W. Fowler, Marietta
Coffee.....		T. H. Clark, Douglas
Colquit.....		S. M. Withers, Moultrie
Cook.....	S. G. Ethridge, Sparks.....	W. M. Shepard, Adel
Coweta.....		A. A. Barge, Newnan
Crisp.....	J. A. Ward, Cordele.....	J. N. Dorminy, Cordele
Decatur-Seminole.....		L. W. Willis, Bainbridge
DeKalb.....	J. F. Schneider, Decatur.....	G. A. Duncan, Decatur
Dooley.....	T. F. Bivins, Vienna.....	F. E. Williams, Vienna
Dougherty.....	N. R. Thomas, Albany.....	I. M. Lucas, Albany
Douglas.....	C. V. Vansant, Douglasville.....	D. Houseworth, Douglasville
Elbert.....	G. A. Ward, Elberton.....	B. B. Mattox, Elberton
Emanuel.....	E. T. Coleman, Graymont.....	R. C. Franklin, Swainsboro
Evans.....	J. W. Daniel, Claxton.....	S. T. Ellis, Hagan
Floyd.....	J. L. Chandler, Rome.....	J. H. Mull, Rome
Franklin.....	S. D. Brown, Royston.....	B. T. Smith, Carnesville
Fulton.....	M. T. Benson, Atlanta.....	Grady E. Clay, Atlanta
Glynn.....	J. A. Dunwoody, Brunswick.....	J. W. Simmons, Brunswick
Gordon.....	Z. V. Johnston, Calhoun.....	R. B. Chastain, Calhoun
Grady.....	J. E. Harden, Whigham.....	J. V. Rogers, Cairo
Greene.....		Goodwin Gheesling, Greensboro
Gwinnett.....	N. H. Pierce, Suwanee.....	D. C. Kelley, Lawrenceville
Habersham.....		R. B. Lamb, Demorest
Hall.....	C. G. Butler, Gainesville.....	Pratt Cheek, Gainesville
Hart.....		A. O. Meredith, Hartwell

County	President	Secretary
Henry.....	R. L. Tye, McDonough.....	H. C. Ellis, McDonough
Houston.....	J. W. Story, Kathleen.....	E. L. Evans, Perry
Irwin.....	.....	G. W. Willis, Ocilla
Jackson.....	F. M. Hubbard, Commerce.....	J. C. Bennett, Jefferson
Jasper.....	J. A. Brown, Shady Dale.....	E. M. Lancaster, Shady Dale
Jenkins.....	M. E. Perkins, Millen.....	C. Thompson, Millen
Jones.....	J. W. Anderson, Gray.....	J. D. Zachary, Gray
Johnson.....	T. L. Harris, Wrightsville.....	J. G. Brantley, Wrightsville
Lamar.....	J. M. F. Barron, Milner.....	J. M. Anderson, Barnesville
Laurens.....	Sidney Walker, Dublin.....	O. H. Cheek, Dublin
Lowndes.....	T. E. Pennington, Naylor.....	S. B. Ellis, Valdosta
Madison.....	H. G. Banister, Ila.....	W. D. Gholston, Danielsville
Macon.....	D. B. Frederick, Marshallville...	F. M. Mullino, Montezuma
Meriwether.....	.....	R. B. Gilbert, Greenville
Mitchell.....	J. L. Brown, Camilla.....	C. A. Stevenson, Camilla
Monroe.....	B. L. Smith, Forsyth.....	W. J. Smith, Forsyth
Montgomery.....	.....	J. E. Hunt, Mt. Vernon
Murray.....	M. P. Bates, Ramhurst.....	E. H. Dickie, Chatsworth
Morgan.....	.....	Dan M. Carter, Madison
Muscogee.....	.....	O. D. Gilliam, Columbus
Newton.....	.....	W. D. Travis, Covington
Ocmulgee.....	A. L. Smith, Cochran.....	A. R. Bush, Hawkinsville
(Bleckley, Dodge, Pulaski)		
Pike.....	D. L. Head, Zebulon.....	M. M. Head, Zebulon
Polk.....	J. L. Howell, Aragon.....	P. O. Chaudron, Cedartown
Randolph.....	Loren Gary, Georgetown.....	G. Y. Moore, Cuthbert
Rabun.....	L. Neville, Dillard.....	J. A. Green, Clayton
Richmond.....	.....	Irvine Phinizy, Augusta
Screven.....	H. E. Ezell, Oliver.....	E. E. Downing, Newington
Spalding.....	W. C. Miles, Griffin.....	T. I. Hawkins, Griffin
Stephens.....	E. F. Chaffin, Toccoa.....	C. L. Ayers, Toccoa
Stewart-Webster.....	J. H. Foster, Preston.....	J. M. Kenyon, Richland
Sumter.....	S. P. Wise, Americus.....	Ford Ware, Americus
Taliaferro.....	A. T. Ray, Sharon.....	J. A. Rhodges, Crawfordville
Tattnall-Evans.....	Jno. H. Bowen, Cobbtown.....	J. C. Collins, Collins
Talbot.....	J. E. Peeler, Woodland.....	C. C. Carson, Talbotton
Taylor.....	W. W. Edwards, Butler.....	J. C. Hind, Reynolds
Telfair.....	Frank Mann, McRae.....	C. J. Maloy, Helena
Terrell.....	R. E. Bowman, Bronwood.....	Logan Thomas, Dawson
Thomas.....	Roy A. Hill, Thomasville.....	C. K. Wall, Thomasville
Tift.....	W. E. Tyson, Chula.....	C. S. Pittman, Tifton
Toombs.....	J. E. Mercer, Vidalia.....	W. W. Odom, Lyons
Tri.....	J. G. Standifer, Blakely.....	C. R. Barksdale, Blakely
(Early, Miller, Calhoun)	.....	Lewis Beason, Darien
Turner.....	F. W. Rogers, Ashburn.....	J. H. Baxter, Ashburn
Troup.....	.....	W. H. Hadaway, LaGrange
Twiggs.....	.....	H. A. Rogers, Jeffersonville
Upton.....	B. C. Adams, Thomaston.....	R. L. Carter, Thomaston
Walker.....	M. W. Spearman, Chickamauga.	J. H. Hammond, LaFayette
Walton.....	H. L. Upshaw, Social Circle.....	J. K. McClintie, Monroe
Ware.....	J. E. Penland, Waycross.....	K. McCullough, Waycross
Warren.....	A. W. Davis, Warrenton.....	R. C. McGohee, Warrenton
Wayne.....	.....	M. N. Stow, Jesup
Washington.....	N. Overby, Sandersville.....	B. L. Helton, Sandersville
Whitfield.....	H. J. Ault, Dalton.....	E. O. Shellhorse, Dalton
Wheeler.....	D. C. Colson, Glenwood.....	W. A. Rivers, Glenwood
Wilkes.....	.....	H. T. Harriss, Washington
Worth.....	J. L. Tracy, Sylvester.....	W. C. Tipton, Sylvester

NEWS ITEMS

The Colquitt County Medical Society met at the office of Dr. E. L. Lawson, Moultrie, May 4. Several interesting cases were reported and discussed.

The American Association for Medical Progress reports 33,752 cases of smallpox in the United States during the year 1926, and 41,643 in 1925 and gives the United States the unenviable distinction of reporting more cases than any other country in the world, except Asia.

Dr. D. L. Seekinger, Savannah, deputy district commissioner of health, addressed the nurses at the health center on May 13 on the necessity of following up the health work that had been done for the school children during the summer vacation.

Dr. J. B. Franklin, Houston, Texas, assumed his new duties as superintendent of the Georgia Baptist Hospital, Atlanta, on May 16. He was formerly on the staff of the Hermann Memorial Hospital of Houston.

Dr. Chas. E. Dowman, Atlanta, was host to the Society of Neurological Surgeons during its meeting in Atlanta on May 20-21. The society is composed of twenty-six brain surgeons of America.

The healthmobile sent out by the state board of health on May 19 to 25 visited the following places: Edison, Morgan, Cordray, Leary and Arlington.

Dr. Craig Barrow, Savannah, chief surgeon for the Central of Georgia Railway, is in charge of the new hospital built by the road at Bull and Forty-Seventh Street, Savannah.

Drs. M. E. Winchester, director of county health work; J. R. Evans, Decatur; B. V. Elmore, Rome; H. L. Akridge, Brunswick and G. T. Crozier, Lowndes County, went to Memphis in response to a call from the American Red Cross for relief and precautionary work in the Mississippi flood area.

The Ware county grand jury recommended the employment of public health nurses for following up the work begun by the Ware County Health Department.

The Georgia Medical Society, Savannah, at its regular monthly meeting on May 25 was given a symposium on cancer by the following physicians: H. L. Levington, "Predisposing Cause of Cancer"; S. E. Bray, "Cancer of the Skin"; W. A. Norton, "Cancer of the Breast"; Wm. R. Dancy, "Cancer of the Digestive Tract"; and Jabez Jones, "Cancer of the Uterus".

Dr. V. H. Bassett, Savannah, city and county health officer, reports that there has not been a single death in Chatham county from diphtheria since February 22, 1926.

Dr. and Mrs. W. V. Chandler, Baldwin, entertained the members of the Habersham County Medical Society at their home on May 11.

The Georgia Health Congress met at Macon on June 9. City and county health officers together with civic, fraternal and commercial organizations were invited to consider reports on tuberculosis, malaria, typhoid, infant mortality, maternity mortality and general health conditions in Georgia.

The Colquitt County Board of Health reports that from April 1 to May 15, 775 persons had been given anti-typhoid vaccine and 2,000 vaccinated against smallpox.

Mrs. Elizabeth Crawford, Albany, Dougherty county health nurse, gave a pre-school clinic at her office in the county court house, weighed and examined the children, vaccinated and gave toxin-antitoxin.

Dr. T. R. Aycock, Monroe, is in New Orleans taking a post-graduate course at Tulane University of Louisiana Graduate School of Medicine.

Drs. J. A. Shields and J. M. Underwood, LaFayette, have installed a modern X-Ray machine unsurpassed by any for service.

Dr. J. R. McMichael, Quitman, was one of the principal speakers at the meeting of the Rotary club on May 24.

Dr. Emory R. Park, LaGrange, has been elected president of the Troup County Humane Society.

Dr. Harry B. Nunnally, Monroe, has resumed active practice to the delight of his friends and former patients.

The graduating exercises of the University of Georgia Medical Department, Augusta, were held in the auditorium of the new Richmond Academy on June 7. Address to the class was delivered by Hon. Richard B. Russell, Chief Justice of the Supreme Court. Dr. W. H. Goodrich, dean, delivered the diplomas to the graduating class consisting of twenty-eight.

Drs. C. K. Sharp and W. W. Calhoun, Arlington, were hosts to the Tri-County Medical Society at its meeting held at Arlington on June 10.

Dr. R. L. Tye, McDonough, sailed for Europe on June 11 to take a post-graduate course in the study of disease of the eye, ear, nose and throat in the hospitals at Vienna.

The LaFayette Hospital, located at LaFayette, was opened to the public on June 18 with Drs. R. M. Coulter and D. W. Hammond in charge.

The Third District Medical Society held its fortieth semi-annual meeting at the auditorium of the Carnegie Library, Americus.

Dr. Newdigate M. Owensby of Atlanta, has recently returned from Cincinnati, Ohio, where he attended the meeting of the American Psychiatric Association, the National Association for the Study of Epilepsy, The American Psychoanalytic Association, The American Psychopathological Association, The American Ortho-psychiatric Association, and the American Association for the Study of the feeble-minded.

Dr. T. J. McArthur, Cordele, was elected president of the Medical Alumni of Emory University at a banquet held in the ball room of the Henry Grady hotel on June 10. Other officers elected were: Dr. J. C. Davis, Quincy, Florida, first vice-president; Dr. M. C. Pruitt, Atlanta, secretary-treasurer; Drs. M. T. Benson, Atlanta; W. A. Miller, Arabi, and J. F. Posey, Anniston, Alabama, trustees. Dr. R. H. Oppenheimer, Dean of the Medical Department of Emory University, spoke on "Our Medical School"; Dr. Allen H. Bunce on "Clinical Research in the Practice of Medicine"; and Bishop Warren A. Candler on "Emory Progress".

Dr. C. W. Findley, Vidalia, has opened offices in the Poe Building on Railroad Avenue, Vidalia, for the treatment of diseases of the Eye, Ear, Nose and Throat.

The graduating exercises for the nurses of the Athens General Hospital were held at the institution on June 2.

Dr. O. O. Watson, graduate of the University of Georgia Medical Department, Augusta, has been elected interne at the Savannah Hospital.

Dr. A. C. Branch, formerly of Hollywood, Florida, has moved to Glennville and opened offices in the store of the Tattnall Drug Company.

Dr. Richard A. Verdier, formerly of McKinney, Texas, has moved to Thomaston, Georgia, and opened offices for the treatment of diseases of the Eye, Ear, Nose and Throat.

The American Board of Otolaryngology conducted an examination at Washington, D. C., on May 16 and 17, and at Spokane, Washington on June 4. Of the 142 men examined at Washington, D. C., 119 were passed and 23 failed to pass the examination. In Spokane, the number passed was 46, and the number failed was 6.

The next examination will be held in Detroit on September 12, 1927. Applications for examination should be sent to Dr. H. W. Loeb, Secretary, 1402 South Grand Boulevard, St. Louis, Missouri.

The Third District Medical Society held its fortieth semi-annual meeting in the auditorium of the Carnegie Library at Americus on June 15 with Dr. Sam P. Wise, Plains, presiding. The members of the Woman's Auxiliary arranged a banquet at the Windsor Hotel.

The LaFayette Sanitarium at LaFayette was opened on June 18 to the public for inspection. The reception committee showed all visitors through the building and served refreshments.

BOOKS RECEIVED

A Compend of Human Physiology, especially adapted for the use of medical students by Albert P. Brubaker, A.M., M.D., author of a text book of physiology; professor of physiology and medical jurisprudence in the Jefferson Medical College. Sixteenth Edition with twenty-seven illustrations, contains 281 pages. Publishers: P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia.

The Surgical Clinics of North America (Cancer Number—February, 1927) (Issued serially, one number every other month). Volume 7, Number 1, 235 pages with 153 illustrations. Per clinic year (February 1927 to December 1927). Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

Practical Otology by Morris Levine, M.D., Associate Professor of Otology, New York Post-Graduate Medical School and Hospital; Associate Attending Otologist, New York Post-Graduate Medical School and Hospital. Illustrated with 145 engravings and 3 colored plates. Containing 387 pages. Price, Cloth \$5.50. Publishers: Lea & Febiger, 600 S. Washington Square, Philadelphia.

The Human Body in Pictures. A Visual Text Book of Anatomy, Physiology and Embryology by Jacob Sarnoff, M.D., Associate Surgeon, United Israel-Zion Hospital; Attending Surgeon, Harbor Hospital; Consulting Surgeon, Infant's Home; Formerly Associate and Instructor of Anatomy, Long Island Medical College. Contains 120 pages, 190 original illustrations. Publishers: Physicians and Surgeons Book Company, Henry and Pacific Streets, Brooklyn, New York.

Disorders of the Nose, Throat and Ear, Problems of Deafness, by Aaron Roth, M.D., F.A.C.S., Attending Ear, Nose and Throat Surgeon, Jewish Hospital; Brooklyn; Assistant Chief of Staff, Ear, Nose and Throat Department, Brownsville, E. N. Y. Hospital, Brooklyn, N. Y. Contain 238 pages with original illustrations. Publishers: Physicians and Surgeons Book Company, Henry and Pacific Streets, Brooklyn, New York.

How to Make the Periodic Health Examination. A Manual of Procedure by Eugene Lyman Fisk, M.D., Medical Director, Life Extension Institute and J. Ramser Crawford, M.D., Assistant Medical Director, Life Extension Institute. Contains 393 pages. Publishers: The Macmillan Company, New York City.

International Clinics. A quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on treatment, medicine, surgery, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest to students and practitioners by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, M.D., Philadelphia. Contains 308 pages. Publishers: J. B. Lippincott Co., P. O. Box 1579, Philadelphia, Pa.

OBITUARY

Dr. T. E. Pennington, Naylor, died at his home May 10, 1927. He was a graduate of Emory University School of Medicine, Atlanta, was widely known and highly esteemed throughout his section of the state. He was active in all business, civic and church affairs. Dr. Pennington was a member of the Lowndes County Medical Society, the Medical Association of Georgia, and the baptist church. He is survived by a wide family connection in Lowndes and adjoining counties. Funeral services were conducted by Rev. H. D. Johnson of the First Baptist Church of Valdosta and Rev. Warwick of the First Methodist church.

Dr. George S. Roach, Ludowici, died June 4, 1927, in a Savannah hospital after an illness of several weeks. He was born at Edgefield, South Carolina, in 1856 and graduated in medicine from the University of Georgia Medical Department, Augusta. Dr. Roach lived and practiced medicine at Ludowici for about forty years, except for a few years spent at Oliver. He is survived by his widow; two daughters, Mrs. W. M. Berry, Atlanta, and Mrs. Ramsey Fuller, Hazard, Kentucky; one brother, Dr. Richard Roach, Savannah. Funeral services were conducted by Rev. Q. J. Penson, pastor of the Ludowici Methodist church, and interment in Bonaventure cemetery, Savannah.

Dr. Walter Edwin Paris, 1 East Gordon Street, Savannah, Georgia, died at the home of Mrs. Paris' mother, Mrs. J. L. Johnston, 662 Cascade Avenue, Atlanta, on June 10, 1927. He was born in 1872 and graduated from Tulane University of Louisiana School of Medicine in 1894. Dr. Paris began the practice of his profession in Gainesville, later moved to New York City and practiced pediatrics there until about eight years ago when he located in Savannah. He was a member of the Masonic lodge, Georgia Medical Society, Savannah, and the Medical Association of Georgia. Dr. Paris is survived by his widow; one daughter, Margaret Johnston Paris; one son, Walter E. Paris, Jr., and two brothers, Tracy and Roy Paris. The body was carried to Gainesville, Georgia, for funeral services and interment.

Dr. John Harrison Knight, East Point, Georgia, died at his home, 400 Glenwood Avenue, June 10, 1927. He was born in 1854 and graduated from the University of the South Medical Department, Sewanee, Tennessee. He was a member of the Fulton County Medical Society and the Medical Association of Georgia. Dr. Knight is survived by his widow; one daughter, Mrs. R. L. Christian, Atlanta; two stepsons, W. B. Garland, College Park; Rev. C. R. Garland, Spokane, Washington; one sister, Mrs. Fletcher Lindsay, Jettersville, Virginia; one brother, J. T. Knight, Chase City, Virginia. Funeral services were conducted by Rev. B. J. W. Graham from the First Baptist Church of East Point, and interment in West View cemetery.

Dr. Marian Macmillan Kershaw, Augusta, died at her home, 607 Carolina Avenue, North Augusta. She was born at Charleston, South Carolina, July 10, 1876, and graduated from the Medical College of the State of South Carolina, Charleston, in 1903. She was one of the South's most successful women physicians, having taken post-graduate courses at The New York Polyclinic Medical School and Hospital, New York City, and at the Woman's Hospital, Boston, Mass. Dr. Kershaw was associated with her husband in the practice of medicine and took an active interest in the welfare of her home town, was a member of the council for four years, chairman of the street and drainage committees and did much valuable sanitation work. She was twice president of the North Augusta Improvement Club, leader in the Parent-Teacher Association activities, director in the Nancy Carson Library, president of the County Federation of Women's Clubs, and four years physical examiner at the Young Woman's Christian Association. Dr. Kershaw was a member of St. Paul's Church, Richmond County Medical Society and the Medical Association of Georgia. She is survived by her husband, Dr. Theodore Kershaw; three sons, John, Theodore, Jr., and Gourdin; one daughter, Marion. Funeral services were conducted from St. Paul's Church and interment in Magnolia Cemetery, Charleston, South Carolina.

CAT.

Dr. Jackson B. Golden, Atlanta, died at his home, 1378 Lucile Avenue, S. W., June 15, 1927. He was born in 1859 and graduated from Emory University School of Medicine in 1892. He took a great interest in civic affairs and was a member of the Gordon Street Baptist Church. Dr. Golden is survived by two daughters, Mrs. J. O. Daniel and Miss Ruby Golden; two sons, Gordon and C. H., all of Atlanta; one sister, Mrs. F. P. Smith, Bremen. Funeral services were conducted from the residence and interment in Union Hill cemetery, Temple.

DAVIS-FISCHER SANATORIUM

The Davis-Fischer Sanatorium has secured the services of Miss Lillian Kennedy, as a full time artist to prepare illustrations and anatomical sketches for the members of the staff. Miss Kennedy has recently completed a course in anatomical drawing at Baltimore and the management is to be congratulated on securing her services.

ANTIMONY AND POTASSIUM TARTRATE IN CHANCROIDAL INFECTIONS

Alfred E. Jones, Chicago (Journal A. M. A., May 28, 1927), concludes that the period of convalescence of hospitalization of patients suffering from chancroidal infections and their complications will be reduced at least 50 per cent if, in addition to local treatment, antimony and potassium tartrate is administered intravenously. The pain, discomfort, discharging edema and other disagreeable symptoms will be perceptibly lessened or almost entirely disappear after the first few injections. A 1 per cent solution of antimony and potassium tartrate is used. An initial dose of 3 cc., increasing 1 cc. with each dose up to 10 cc., with the administration at four-day intervals, seems to be amply sufficient. Of the twenty-seven cases treated at the Mercy Hospital Dispensary, twenty-three, or 85 per cent, showed excellent results.

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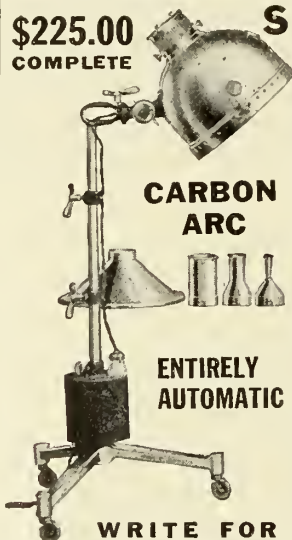
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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

Volume XVI

Atlanta, Ga., August, 1927

No. 8

THE NEWER PSYCHOLOGY IN ITS PRACTICAL APPLICATION TO GENERAL MEDICINE*

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In any present day discussion of psychology it is absolutely necessary to define one's attitude. P. T. Barnum's discovery with reference to the receptivity and gullibility of the public is well borne out by the array of mystical and mythical ideas foisted upon them. The announcement of an article on "New Psychology" may mean anything. Such a term may be the starting point of a treatise on "new thought" or other varieties of Quimbyism; Freudianism or some popular modification of the psychoanalytic concept; so-called character analysis; spook hunting under the guise of psychic research; and all types of fads and fancies garbed in robes of somber hue and appealing thru their apparent reach into the unknown to that curiosity inherent in all humanity. The priests of Baal are indeed cunning in the ingenuity with which they devise methods for enticing the people away from the true God.

However, all of these things have their possibilities. It would seem that a dominant factor in the acquiring of knowledge is trial and error. So, if there is no positive contribution to real facts in these various pseudoscientific foibles, they become factors on the negative side. Assuming a plodding way and keeping to the main track of proven fact, there is a psychology which is in real earnest attempting to find out the truth. It is of this we wish to speak.

The first attempt to get at an understanding of human conduct of which we have knowledge was in Hellenic days. Aristotle was the chief spokesman for the ideas growing out of this attempt. It seems a peculiar twist of the activities of the human organism when confronted with unknown quantities, especially those relating to themselves, to wander into the realms of metaphysics. So we find Aristotle's lines of thought very frequently taking metaphysical trends. On the whole, however, in his psychological researches he faced reality rather squarely and with a common sense attitude. His investigations were chiefly concerned with cause and effect and to this extent were along the lines of modern scientific leanings. His conception of the psyche was not that of a mystical entity but rather an energy expression of the entire organism.

Very little known progress was made after Aristotle until about the sixteenth century when Descartes appeared upon the stage as one of the first of modern doctors of psychological theory. Had he stuck to the common sense attitude which he apparently had in the beginning, it is probable that we should be more advanced in our knowledge than we are. As it was he made the beginnings of modern physiological psychology and laid the foundation for the present-day reaction theory. However, he deviated from a strictly scientific attitude and in this deviation prepared the way for the conception of psychophysical parallelism and epistemological dualism which dominated psychological attitude for the next three hundred years.

Malebranche immediately elaborated upon this and built up a conception which is more philosophical than psychological. This philosophical attitude conceives of the "mind" as a distinct entity from the "body" but in some way closely related to it. The mind is

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

made up of certain elements which can be definitely observed. It is composed of psychic objects and the physical world of physical objects. The psychic objects may be observed by introspection. This conception was a parallelism: the two existing in close relationship but never intermingling. Some had a conception of a form of interaction between the two and some simply ignored the possibility. There was also an attempt at times to make a casual explanation on the basis of a theory of the influence of the one upon the other. But the controversy between the parallelists and the interactionists is no longer a live issue. The Freudian theory of the "sub-conscious mind" is a direct result of the hangover from this conception.

This conception was taken over by Locke and the subsequent English school and despite Huxley's criticisms persisted as the dominant line of thought. They in turn had a profound influence upon German thought. Thru psychologists of German training this conception was passed on to this country. It has persisted and in some form has influenced many schools of thought.

For the past half century, however, there has been a steadily growing experimental psychology. In the beginnings and for some time it clung to the old conceptions; used the old terminology; and attempted to co-ordinate its findings with the older ideas. By 1906 the spirit of change was truly in the air with a tendency to dump all superfluous and unreasonable hypotheses with philosophical attributes. Men became dissatisfied with the investigation of a mystical, artificial "mind" and the resulting metaphysical meanderings. Animal experimentation of necessity focussed the attention upon behaviour with the result that Binet and Ebbinghaus began to study children upon the basis of conscious behaviour. There was a definite return to the viewpoint of Aristotle with an investigation into cause and effect. The trend was away from the introspectional viewing and dissection of mystical psychic objects with the emphasis on what we perceive; what we think; and what we feel. And the study of behaviour led to an investigation of how we perceive; how we feel; how we think; and how we act with a subsequent why.

So we come to a more accurate estimate of the problems of psychology by a consideration of the psyche more nearly from the Aristotelian viewpoint of an energy expression of the organism as a whole: that is, some form of biological conception. We may define the problem as one relating to the dynamic expression of the adaptation of the organism to its environment, both endogenous and exogenous, or those factors giving rise to stimuli both from within and from without. There may be some quarrel with this definition in its actual integrity for covering all the aspects of the problem but in general it expresses the theorem. We are concerned with the behaviour of the individual in response to situational stimuli and the response is determined not only by the exogenous environmental factors but by the actual state of the organism at the time.

Now it is beyond the scope of this paper to enter into a technically detailed discussion of reaction psychology but we wish only to set forth certain aspects to which we may apply practical consideration from a general medical standpoint. For this purpose we may divide the adaptive mechanism into three parts: the afferent nervous system by which we receive impressions from without and from within; the autonomic nervous system with the possible correlation of the endocrine system as the great response mechanism concerned in the so-called emotions; and the cerebrum which stores memories of previous experiences, correlates them with the present situation, and inhibits, retards, and directs responses.

Watson has made us somewhat simplify our conceptions of what type of response mechanism we bring into the world thru heredity. He has shown that the newborn is endowed at birth with a response system which is apparently very simple in its actual expression. Whether he has exhausted all the potentialities of the proposition is a question. However, this much is evident that we are endowed at birth with an active response mechanism which is associated with those feelings which we designate emotions. This is concerned with the reactivity of the autonomic and glandular systems. It is probably handed down as a type of reaction built into

the organism for defensive purposes. At all events the type of response which we term emotional is characterized by the fact that it renders the organism readier for quick and sustained motor activity.

Stimulation of the sympathetic causes a decrease in the activity of the gastro-intestinal tract both glandular and motor; an increase in heart rate; an increase in glycogen thrown into the blood; an increase in the secretion of sweat. Thus the organism is freed from the necessity for caring for digestion and all the energy is concentrated upon the motor system of the body. So we see that the blood which contains more energy producing substance is pumped more rapidly to the muscles which are in a state of increased readiness whereby they act quicker and longer. The increase in sweat frees the body of the increase in heat production attendant upon heightened energy. The perception of these physiological changes by the higher centres and the correlation with previous experiences is spoken of as an emotion. Thus we see that the primary purposes of the emotions is dynamic: to put the organism in a state of readiness for motor responses. It is thru the agency of the afferent system that such an emotional response is initiated.

In turn the third element involved in our adaptive mechanism is the cerebrum. It in turn thru proper correlation of experience with situation guides and directs or modifies the form the motor response initiated by the emotions will take. This comes within the realm of the learned reactions.

So returning to our original premise: we must have these three components of our adaptive system properly functioning or compensating in order to have a "normal mind." Any interference with function in one of these spheres: in the central, peripheral, or autonomic nervous systems, will cause more or less derangement of our adaptivity. This interference may be functional or due to faulty habit formation or it may be organic and due to some disorder which definitely interferes with the proper activity of the system.

It is in the realm of the emotions where we find the seat of behaviour disorders. Anything which increases the relative or absolute

reactivity of the emotional system and causes these reactions to dominate will produce an abnormal adaptation. We may have disorders which may heighten the reactivity of the emotional system and those which lessen the control of the higher or psychic centres. We shall consider these in a general way under the heads of: 1—Disorders of sensation; 2—Disorders of the vegetative and secretory system; and 3—Disorders of the cerebral control.

One of the most prominent factors in disorders of sensation is irritants. It is a common observation by the average layman that anyone with an abscessed tooth which aches furiously is not "mentally normal". This is a simple illustration of larger facts. Chronically painful or chronically irritating afferent stimuli will give rise to perversions in the emotional reactivity. We so frequently hear said, "We can't stand it any longer". Again we may have a hypersensitivity with the breaking into the perception of stimuli which would ordinarily end at lower levels. Misinterpretation by the higher centres of abnormal afferent impulses may result where these centres are accustomed to interpret certain stimuli in certain ways. It is well known one who has had an amputation will awaken from the anaesthetic with sensations referred to the missing leg. So too where there is a paralysis with loss of certain afferent impulses the lack of perceptions which would ordinarily be expected from certain situational factors may be misinterpreted on the basis of past experiences. Hence under conditions of chronically present sensation disorders we may find an interference with normal adaptivity.

Disorders of the autonomic system with its consequent emotional instability or heightened emotional reactivity is probably a most prominent factor in failures in adaptation. This system may respond to habit formation just as truly as may the central nervous system proper. Faulty habits in emotional control; instillation of chronic fear reactions; and life under chronic emotional stimulation in general will give rise to a definite autonomic imbalance. Disorders of the internal secretions, the most prominent of which is the thyroid, bring about similar results. Acute

infections and chronic intoxications thru their action upon the sympathetic cause either transient or permanent loss of autonomic balance with consequent emotional instability.

These habit disorders may be ameliorated to some extent so far as the activity resulting in the organism is concerned by learned cortical control. Where the emotions overtop the control mechanism new elements of control may be built into the higher centres. All of this presupposes an intact cerebrum. So we find disorders of the cerebrum either toxic or organic lesions may give rise to failures in adaptation. On the purely functional side improper habit formation in childhood; improper inculcating of emotional control will render the individual incapacitated for meeting emotional situations.

With this very brief and inadequate exposition of the most important factors entering into our adaptive mechanism we return to our original postulate and if we conceive of the "mind" as an expression of the entire organism. With this viewpoint psychology has a very definite message to the man of medicine. First, it is the pediatrician or the family physician who comes in contact with the child and young mother. It is their advice which is sought in all emergencies. It is within their scope to inculcate right principles of habit formation both in the emotional and psychic levels and thus prevent the growth of an organism poorly adapted to meet the stresses of life.

It is also within the province of the family physician to eradicate sources of irritation to the autonomic and cortical systems. But above all the supreme note of caution should be sounded in the handling of the convalescent. In acute disorders, especially the acute infections, the sympathetic is in a state of constant activity so that in the period of convalescence an autonomic imbalance with consequent emotional instability is to be expected. This means that emotional situations may have a more pronounced and perhaps disastrous effect upon such an individual than ordinary. Incapacity for motor response with proper metabolism of the products of sympathetic physiological response gives rise to by-products which are toxic. So such a patient should be relieved of all stimuli which might

so upset them. Odors, noises, apparently insignificant events may be the source of irritation and may be a tremendous factor in retarding recovery. Of course, major emotional stimulation may have a very pronounced result.

The surgeon too may find sources of difficulty in improperly balanced individuals. The approaching to a major operation should be fraught with as little emotional atmosphere as possible if the best results are to be obtained. The convalescence should be guarded as carefully as in the case of acute infection. Any individual who is sick has a fundamentally abnormal adaptive system and hence must have environmental factors controlled.

These practical considerations could be multiplied and enumerated ad infinitum. We have indicated only a few. The biological conception shows us that the "mind" is not some mystical entity which may be dissected and controlled separate from the physical but is indivisible from the organic make-up of the individual: a dynamic expression of the organism's contacts. From this conception every man in the practice of medicine may draw lessons for his guidance in handling his everyday clientele.

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DISCUSSION ON PAPER OF DR. YOUNG

Dr. G. L. Echols, Milledgeville: I have had occasion to study this paper before coming here. Doctor did not quite finish his paper but it leads up to the reactions of thought and emotions and it is along this line of thought that I wish to give a few illustrations from my own recent personal studies in mental cases.

1. *Child Study:* Father, alumnus University of Georgia, mother of Wesleyan College; eight children. While the first five were in the formative ages the home was very congenial, resulting in five well adapted children, who have been very successful. When the last three children were in the formative ages,

parental relations become very uncongenial, resulting in three children poorly adapted, indifferent, stubborn, incorrigible, making but little or no progress in school.

2. White female, widow, aged fifty. First attack nineteen years ago, of about two months' duration, precipitated by the death of her infant at about the time of the death of her father and the beginning of her husband's drinking. This combination of stimuli worried her; she became discontented; could not be still, wanted to be on the go and roving, slept poorly, was very talkative during the day and night. Also, during this attack she cried much of the time. She made a complete mental recovery.

Second attack fifteen years ago, precipitated by husband's drinking and neglecting his affairs. Duration about three months. Symptoms similar to those of the first attack except worse. Another attack occurred two years ago, precipitated by her son's drinking. Duration about three months, characterized by being restless, unable to sleep; had but little to say, and, to use her expression "took it all out in crying". Complete recovery. Present attack four months ago precipitated by hearing that two of her nephews were in trouble about a stolen car, and one of these boys had run away. Symptoms manifested: irritable, cross, emotional, crying and laughing, talking, restless and sleeping poorly.

In this case we have a definite so-called mental disease in which most of her life was spent as an apparently normal individual, but under certain trying stimuli the mental attacks were precipitated.

3. White female, single, age 18, graduate of a beauty college, began work in a Georgia city in a barber shop adjacent to a picture show. Just after she began this work the manager of the picture show carried her out for a ride. Nothing unusual occurred. After this he paid no attention to her other than to ask her if she liked the picture after she had attended his picture shows. He would associate with other girls and this worried her and made her jealous. She was sure that he loved her. After two months she developed a mental disturbance in which she thought she was married to this young man, that they were living happily together. She would imagine that he was fondling her, having sex relations with her, etc. The duration of this attack was something like a month and it was followed by an apparently complete recovery.

4. White female, single, age 16. We have a child whose parents separated while she was still in the formative age, which, according to her, was somewhat embarrassing. On account of the broken family she lost much time from school and was ready for high school last fall,

but on account of poverty it would have embarrassed the family to pay the fees, furnish her books, etc., and, as a result of this, she did not enter high school last fall, but at home attempted to study, unassisted, many of the high school studies, such as French, English literature, etc. She says that she was very ambitious to have become educated and to have been a great singer, an actress, or a movie actress. (She had a very good voice.) About two months ago she developed a mental disturbance; thought that she had undergone physical changes and had become very beautiful; that her body was made perfect in every way; that her education was finished and that she had become a great singer and an actress. This attack was characterized by restlessness, sleeping poorly, singing a great deal and going through acts as if she were acting in a picture before the camera.

In these two cases we have marked stimuli in the form of ungratified wishes. These wishes or desires could not be obtained in reality, but were obtained, temporarily, by going into a state of phantasy.

Dr. J. N. Brawner, Atlanta: Dr. Young in his paper has given a most excellent resume of modern ideas concerning the mind and its component parts, the emotions and intellect in relation to the brain, sympathetic nervous system and the endocrines or internal secretory system. This is a subject that has been discussed by philosophers for the last two thousand years. I might state that we still do not know what the mind is. We do know, however, that different people react differently to the same stimuli or to the same situation. A stimuli will affect one person very severely and will leave absolutely no impression on the other. This to my mind means that the make-up of the individual is the predominating factor in the way that persons react to different situations and to different stimuli. In other words, the hereditary or constitutional make-up of an individual is the predominant factor. Also, we know that children react to stimuli very much more severely, so to speak, than do adults; in other words, they are affected by situations that do not affect adults. Crille, for instance, gives illustrations showing that when a rabbit sees a dog approaching the adrenal secretions are very much increased and the thyroid secretion increased and the rabbit gets ready to run. When a child sees a dog approaching, if it is a normal child, it has no such reactions but gets ready to pet the dog. If the child, however, has had an unpleasant experience with a dog and has been bitten by a dog, then the child has the same reactions as the rabbit; not only that, but these reactions

go down through the life of the patient. That brings us back to Freud's theory that if young persons receive impressions that are painful or accompanied by shame or embarrassment, these same impressions go down through life and are groundwork for the psychoneuroses that occur later in life.

There is one thing I wish to mention that Dr. Young did not get to in his paper and that is, the impression the physician makes in the home of the patient. The physician should always have an attitude of cheerfulness and hopefulness and should also have in his face an expression of optimism. It is remarkable what effect this will have on the patient, though he may be suffering from typhoid fever or some type of insanity.

Dr. W. W. Young, Atlanta (closing the discussion): I just want to say one other word. I did not really get to the crux of my paper and that is this, that we are too prone as physicians and as specialists in various lines of disorders to consider the heart and to consider the lungs and consider the kidneys in the individual patients. We do not take enough time to consider the interrelation, the interactivity of these various organs. We do not consider the organism as a whole in this impression. We have to consider the adaptation of the organism to its environment, which is the mind, as the expression of the entire organic make-up of the individual. It is the pediatrician, the family physician, the general practitioner of medicine who comes in contact with these disorders early and he may be a contributing factor in making proper habit formations in early childhood. These are most potent factors in later pathologic affections. Some explanation of why we form bad habits which lead to mental disorders later in life would be understood if each individual physician would give sufficient consideration to his individual patient. A broader outlook on this whole subject is a potential factor in bringing about mental hygiene, longevity and adaptability in the individual.

POST GRADUATE COURSE FREE

The Medical College of the State of South Carolina at Charleston, under the auspices of the State Medical Association, will give a post graduate course free of charge from September 12 to 26, 1927. The course will include all the branches of medicine with particular stress on Physical Diagnosis, Obstetrics and Pediatrics. If you are interested in any special work and intend to take advantage of this offer, please notify the College promptly.

DRIED YEAST THERAPY IN CERTAIN PSYCHOSES*

H. D. ALLEN, JR., M.D.

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In every type of mental disturbance the problem of an adequate and well balanced dietary is ever an apparent need. The elder Tuke in one of his earliest reports of York Retreat advocated a heavy meal as the best sedative for the intensely excited persons. Researches in bodily metabolism have also shown that fever as well as states of increased nerve tension, (hyperthyroidism) stimulate the metabolism similarly to increased muscular activity. The investigation into the so-called vitamins have most definitely established scurvy, beri-beri, rickets, and xerophthalmia, as food deficiency diseases. At present there are some promises of adding pernicious anemia to this group with a hope of a rational and successful treatment for it. (1)

In pronounced mental disorders, psychoses proper, the masterly development of descriptions of personality and behavioristic traits, as an index of prognosis, have far overshadowed any development into the real causes of mental diseases, with the exception of general paresis. From a basis of the true etiology it is safe to say that the treatment of the psychoses in general is far behind the advances in other medical specialties. Anything to improve the patient's general physical condition should benefit the patient's mental disorder, is a good working hypothesis, but it is not known to be entirely true. The possibility of an absolute psychogenic psychosis must be recognized. The psychotic manifestations of syphilitic brain lesions, as well as, brain tumors and softening, with the remarkable efforts of the patient to preserve a nucleus of the former personality, in spite of the grossest morbid changes in the brain proper, contrasts with the widest possible persistent aggravations of anti-social behavior in post-encephalitis psychoses with such insignificant changes in the neuro-structures of the lower brain, or even the rampant paranoid states of

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

indefinitely prolonged excitement with no demonstrable brain changes. With this in mind one must wait for much refinement in the conceptions both of psychology and the physiology of the nervous system before ultimate causative factors are demonstrable in mental disorders.

The psychosis that is most often recognized, though very poorly understood as a mere symptom, or with more dignity, a psychic phenomenon, is the delirium accompanying fever or intoxication. Then following the delirium are the confusional states, or less acute deliria, as toxic exhaustion psychosis and the delirium tremens and chronic hallucinatory states from alcoholic or drug intoxications. Usually with a severe febrile disease, or excessive use of drugs or alcohol the sequence of events is very apparent. In similar and just as pronounced delirium-like states a sequence of events do not seem to warrant the severity of the mental symptoms. In these states a convenient refuge is the defective constitution, though complete recovery and maintenance of mental health does not always justify this assumption. Thousands of women survive a more difficult labor without serious mental sequelæ than the parturition that produces a benign stupor, often lasting as long as three to five years, with apparently a complete recovery.

With the advent or the discovery of pellagra in this country, and the so often noted mental changes in the sufferers, the number finding their way to hospitals for mental diseases, as well as the tendency of mental patients to develop pellagra, stimulated much investigation. "Psychosis with Pellagra," found its way into the standard descriptive classification, and it is quite readily recognized that pellagra can produce a rather characteristic psychosis. It can also complicate other psychoses without massing characteristic symptoms. The characteristic psychosis is, however, a toxic exhaustion syndrome.

The work of Goldberger, Wheeler, Tanner, et al., (2) has shown that the development of pellagra is influenced by a large factor recognized as a protein deficiency in the food intake of the patient. They have also shown a peculiar relation to a disease of the dog that they have been able to produce and have

named experimental black tongue. This condition, as produced experimentally, and true black tongue of the dog, as well as pellagra, have been shown to respond with rapid improvement and apparent recovery by the addition of suitable quantities of yeast to the diet as a supplemental protein or vitamin factor.

The relation of a somewhat characteristic mental state associated with pellagra and the significant facts concerning a food deficiency in pellagra, suggests the possibility of certain mental states being due to added factors of food deficiencies, perhaps through some subtle influence on the metabolism of the nervous system, if not an actual pellagra syndrome without the gastro-intestinal and skin symptoms, which may in a sense be meteoric, as rickets in the incompletely acclimatized infants.

The cases reported are given in narrative form, and include the first eight toxic exhaustion psychoses treated. Of the three cases of pellagra two are of more recent dates. The cases are as follows:

1. Toxic exhaustion psychosis, classical type.
2. Three possible toxic-exhaustion psychosis in markedly schizoid individuals.
3. One manic depressive psychosis, with undue emotional stress.
4. Two cases of toxic exhaustion states, with excessive use of sedative drugs.
5. Three cases with definite pellagrous eruptions.

Uniform improvement in these cases suggest the possibility of the dried yeast as a valuable easily assimilated protein in other psychoses than those associated with pellagra. The cases of pellagra are included as additional confirmation of the specific therapeutic value in pellagra, as it is still seen occasionally in our locality. The factor of a food deficiency in both endogenous and exogenous toxic-exhaustion psychosis where an acute starvation or, perhaps, more often a chronic avitaminosis, should receive careful consideration.

The dried Brewer's yeast, besides its prompt curative action in pellagra, presents certain physical properties that make its use as a tonic or restorative a little less empirical than

would seem at first thought. As prepared by at least two concerns for the use in treating pellagra and experimental feeding to laboratory animals on test diets, it contains only 1.5 per cent moisture and 45 per cent protein. This protein is fairly complete and especially rich in phosphatides (Lecithin). Animal experiments show it to be the richest source of vitamin B. (3) A pellagra preventive factor in it aside from the known vitamin is suggested by Goldberger. (4)

When flavored with hops it is good bitter stomachic. Stirred in plain water it tastes like a very stale beer or ale. A taste can be cultivated with sufficient suggestion. It can be disguised in soups, cocoa or coffee. The average dose is a tablespoonful three times a day, and it lends itself favorably as a routine tonic or given between meals with milk encourages an additional feeding where this is desirable in the more extreme cases of malnutrition.

The dried yeast is inactive, has little or no laxative effect. It keeps well when sealed in bottles or cans. It is not to be confused with commercial preparations of active or live yeast that may have some laxative effect, and which at the most is largely moisture and starch with only about 2% of the yeast protein.

Case No. 1. Admitted March 14, 1925. Discharged April 21, 1925.

Young woman in late third decade. Married two weeks. Developed profound depression one day before date set for wedding. This necessitated a change from a large church wedding to a simple home ceremony. She was of a nervous temperament and intense in social activities. For six weeks previous to her breakdown she had attended one or more parties every day and had subsisted on "refreshments," never eating breakfast and very rarely a home meal. For two weeks had had afternoon temperature of 99° to 100°. After the marriage her depression rapidly passed into a complete state of confusion. She was restless to a point of agitation, very apprehensive, did not recognize her husband, and mis-identified persons, place and time. Thought the Ku Klux were after her. Her

husband's religion was perhaps the basis for this idea.

She was admitted to my care in the condition as described above, with very insignificant physical findings, other than a very poor state of nutrition; weight 78 pounds, height 5 ft. 2 in. She was given heaping tablespoonful of Dried Brewer's Yeast three times a day and a regular diet. The first two weeks she gained nine pounds, although most of her food had to be urged upon her by the nurse, who would put it into her mouth. Her mental condition cleared up very rapidly after about the tenth day, with gradually increasing periods of clearness, though her apprehension would return each night and she would be depressed and dazed early in the morning. She was given a sedative only the first two nights after admission. Her family agreed to take her home when she reached 100 pounds in weight, which was two or three more pounds than she had ever weighed. She reached this on date of discharge, and was apparently recovered. She has remained well and has gone through one parturition without any mental disturbance.

Case No. 2. Admitted May 9, 1925. Discharged May 30, 1925.

Young woman in late third decade; wife of rural letter carrier. Had been suffering from a postpartum depression for five months; little appetite, loss of much sleep, worried and generally miserable. Two weeks before admission had become very suspicious of her husband, accused him of consorting with negro women; could see signs of his acts as well as hear noises, and on occasions would take friends where she knew her husband to be, and was still unconvinced when shown she was wrong in her ideas in every possible way.

The history of her make-up showed she had always been seclusive, jealous, easily irritated and given to worrying.

On admission she was rather irritable, demanding that she be allowed to leave the hospital and expressing freely her perverted ideas about her husband, and yet presented an attitude of utter unreasonableness towards the illogic of her deductions from no direct evidence. All of her teeth had been removed,

and she weighed 80 pounds and was about 5 ft. 6 in. in height. Aside of her lack of teeth and poor nutrition there were no remarkable physical findings.

She was given the Dried Brewer's Yeast in liberal tablespoonful doses three times a day and a diet of soft food to meet the requirements of her lack of teeth, as well as milk and orange juice between meals. All of her food had to be urged upon her the first few days. After this her appetite was greatly improved. She professed to have given up her ideas about her husband, and had a rather forced type of insight. She gained eleven pounds in the three weeks stay in the hospital.

She was taken home rather against advice, but has remained free from her delusional ideas and has been able to remain at home. She has been suffering from a stomach trouble and has been treated by a specialist for an ulcerated stomach, and her weight dropped back to 84 pounds.

This case was considered a schizoid reaction to the postpartum exhaustion and malnutrition. The improvement of the three weeks on a sufficient protein and vitamin diet certainly seemed to promise a complete recovery. The transference of her interests to a real stomach complaint or a possible neurosis was unfortunate as far as a recovery was concerned, but not without benefit, if it has diverted her from the very embarrassing idea she held towards her husband.

Case No. 3. Admitted June 16, 1925. Discharged July, 1925.

A single woman in early fourth decade, with limited education. Her mother died when she was very young and she grew up to all the responsibilities of her home. For two years past she was the constant nurse of an invalid father. She was admitted to my care five months after her father's death. She felt responsible for her father's death and had worried a great deal since his death. For a week before admission had expressed many bizarre ideas. Felt she should do some type of atonement. Her personality was described as mentally weak, very peculiar, and very seclusive.

On admission she was very incommunicative, apathetic or only mildly depressed, grimaced, and appeared as if having auditory hallucinations, though definite hallucinations were never established. She was indifferent to her surroundings and careless in her dress and personal appearance. Her height was 5 ft. 3 in. and she weighed 112 pounds, otherwise, no significant physical findings were noted.

She was given dried Brewer's yeast in teaspoonful doses three times a day with ordinary hospital diet. She began gaining weight immediately and after five weeks stay weighed 136 pounds. She rapidly became interested in handwork and was very artistic in making artificial flowers. Was very sociable with the nurses, and other patients. Her insight and mental content was never fully established as she seemed very much embarrassed over her episode of whatever nature it was. From her occasional letters she has remained entirely well.

The malnutrition was evident in this case only through the rapid gain in weight and perhaps points to a toxic exhaustion factor through sheer neglect of self in the patient's inability to readjust herself to a new mode of life following the death of her father. The schizoid nature was perhaps acquired rather than inherent.

Case No. 4. Admitted March 10, 1926. Discharged May 4, 1926.

A married woman in late fifth decade. Had suffered a severe attack of malaria in 1913 and had been a chronic gastro-intestinal invalid since. For past year and a half lived on milk and toast with a strychnine tablet every four hours. The milk was rarely more than a half glass. Was sure she would vomit anything more substantial than this. She had subsisted on this very low ration by remaining constantly in bed during the year and a half. For the past few weeks before admission she had become very apprehensive and confused. She could hear people plotting against her. Turned against husband and was very abusive towards him, accusing him of all manner of sexual offenses.

When first seen she was in an extreme state of inanition. Her height was 5 ft. 4 in. and she was only skin and bones.

She was put upon full teaspoonful doses of dried yeast and was assured that it would enable her to digest, especially prepared food. Her general diet was soft solids, as she had no teeth, and acid milk was given as additional feedings between meals. At the end of the first month she weighed 79 pounds, which could conservatively be estimated as a fifteen-pound gain. She was up and out of bed and able to walk about. Her apprehensiveness and hallucinations had disappeared and she was ashamed of the ideas she had held concerning her husband. Her husband's finances were limited, but he agreed to leave her under treatment until she reached 100 pounds in weight, which she did on a day or so before her discharge. She has been able to remain at home, though she continues more or less in the semi-invalid state of the past fourteen years.

Case No. 5 Admitted November 5, 1925. Discharged June 8, 1926.

Married woman in early fifth decade. Following serious legal conflict involving an immediate member of her family, she assumed, or was involved in many trying responsibilities and circumstances. She felt much humiliated, worried a great deal, and had kept herself more or less in seclusion for about three years. Her worries increased and she had gradually lost about twenty-five pounds in weight. Following a very unusual difficulty, she started from her home by train to visit a relative in a neighboring town, and while on the train apparently she went into an amnesic state in which she rode the train or lodged in stations for five days. She was recognized by an acquaintance in a railway station and held until her relatives could take her in charge.

On admission she was very much confused, apprehensive, and generally depressed. Her mouth was very dry and some sordes were on her teeth. The skin was dry and wrinkled and she gave the general appearance of not having eaten for the five days of wandering. Her height was 5 ft. 6 in. and she weighed 116 pounds. She was given a heaping tablespoonful of dried Brewer's yeast three times a day and put on a full diet. Her increase in weight was 19 pounds in three weeks and she appeared to be in a good mental condition.

She suddenly became very suspicious, thought she was being spied upon and was to be arrested. She became very negativistic and resistive, mumbled constantly to the effect that she was the cause of all of the difficulties in her affairs. She refused both food and water and went very quickly into a stupor of the catatonic type. For two months she was fed almost entirely with a nasal tube, a feeding mixture of a pint and a half of whole milk to which was added two eggs, two tablespoons full of sugar and a heaping tablespoonful of the dried Brewer's yeast. This was given twice a day. It was impossible to weigh her during her stupor, but she apparently maintained her weight at 135 pounds. On coming out of her stupor she passed into a mild hypo-manic state in which she was quite gay, talkative, and over dressy. With full diet and smaller doses of the dried yeast she gained to 165 pounds. Since leaving the hospital she has returned to a quiet normal conditions and has apparently remained well.

Case No. 6. Admitted May 30, 1926. Discharged July 24, 1926.

A widowed woman in seventh decade. Suffered from asthma and insomnia practically all of her life. For the past 25 years she had taken bromide each night to produce sleep. Following the death of her husband, two brothers, and a sister, all within six months, she became very much depressed and began taking bromide and chloral compound to produce sleep each night. She then developed indigestion and would eat little or nothing. Two weeks before admission she developed a marked confusion, and all drugs were stopped. The confusion progressed until she would get lost from her own room in her home. She was very apprehensive and felt that all of her property was being taken away from her and people were conspiring to harm her.

On admission she was completely confused, very apprehensive and depressed. She misidentified persons, place and time. She was given a diet of soft solids, and additional feedings of acid milk and dried Brewer's yeast three times a day.

This patient was in bed most of the time for the first two weeks, but was apparently

gaining weight. Her weight after two weeks treatment was 134 pounds, and she gained steadily to 146 pounds, at the time of her discharge. Her confusion cleared gradually, showing the usual night and morning cloudiness lessening in intensity each day. She was discharged perfectly clear mentally and sleeping better than she had in the past twenty-five years. An answer to a follow-up letter in November, 1926, reported her still in good condition mentally and that she had had a mild attack of fever lasting six weeks without any mental upset.

Case No. 7. Admitted June 27, 1926. Discharged August 2, 1926.

A widowed woman in sixth decade. A very neurotic individual with a previous psychotic episode four years ago, lasting two months. Her history was that she had had neuritis of left arm and she had been given about one-half to a grain of morphine a day by her physician for a period of three weeks. With the withdrawal of the morphine she became very irritable, and suspicious, felt she was being conspired against and accused her son of various forms of misconduct.

She was admitted in a state of lethargic stupor, which lasted three days. Investigation disclosed this to be due to an over dose of allonal. A physical examination disclosed nothing, except an extreme degree of depletion. Naturally, she was rather obese, but at first her skin was very wrinkled and loose, and she gave the appearance of being very aged. A consultation neurologist sent a complete report with her and diagnosed her as a case of senile delirium. Her height was 4 ft. 11 in. and her first weight after one week in hospital was 132 pounds. In four weeks more she had gained twelve pounds, with a general diet and teaspoonful doses of dried yeast three times a day. Her skin regained a good tone and was in keeping with her age. Her ideas concerning the misconduct on the part of her son were given up, though she remained very defensive in regard to her use of hypnotic drugs. Since leaving the hospital she has adjusted herself to the very trying life of boarding in a large hotel with her son, who is a traveling salesman.

Case No. 8. Admitted August 7, 1926. Discharged September 18, 1926.

Widowed woman beginning sixth decade. Had had a manic depression in 1914 lasting three months. Had pellagra in 1920, but with no unusual amount of depression, recovering under a high protein diet very promptly.

Following the death of her husband she became very much depressed and worried a great deal, but was kept at home until May 10, 1926, when she became so excited that she had to be carried to a sanitarium for mental diseases. She was admitted to my care after having been in another sanitarium for three months. Her general mental state was that of a typical manic excitement. Physically, she showed a marked loss of weight, apparently weighing less than 100 pounds. Her normal weight was given as 145 pounds and her height was 5 ft. 6 in. She also had a paralysis of the left hand, presumably from an injury to the musculo-spiral nerve. From the history, she had received only liquid diet on account of attacks of diarrhoea, and perhaps difficulty in feeding.

For the first two weeks after admission she had to be confined to her room as she was very destructive, especially to her clothes, and profane in her language. A complete physical examination was impossible on account of her lack of co-operation. However, an inspection showed a glove type marking or rough pigmented skin on both hands as if they were sunburned. Around her neck was the dark pink band broadening out over the back of the neck. The lighter pink butterfly marking was across her nose, this was studded with enumerable fine white comedones. The comedones also being in a little spot on the chin just under the lower lip. These skin changes seemed to be the classical pellagra eruption and were apparently of a very recent development.

She was put upon full diet, which she ate ravenously, but refused to take the dried yeast. Her diarrhoea returned after one day on the full diet. As she was especially fond of coffee her dried yeast, tablespoonful doses, three times a day were disguised in the coffee, and as she took it without difficulty, the full diet was continued. Within two weeks her diarrhoea had subsided completely, her skin

was almost well, except for the pinkish marking and her excitement had subsided and she was able to be out of doors most of the day. Her first weight at the end of two weeks showed her weight to be 118 pounds. In the next four weeks she had gained to 134 pounds. She was discharged still mildly depressed and very much worried over her wrist drop, which, however, was improving under massage and heat treatments. She continued to take her yeast until her weight increased to 145 pounds, which was accomplished with an additional pound of the dried Brewer's yeast. Two months later she accomplished her demise at her own hands, having been left alone in her home and her family feeling she had entirely recovered.

Case No. 9. Admitted October 29, 1926. Discharged February 26, 1927.

Married woman in fourth decade. Had previous psychotic attack lasting several months in 1920; presumed to have recovered.

Admitted to hospital with history of attack beginning with crying spells and telling her sister that she was not the same. She became very much excited at times and would try to fight and tear up her clothing; very difficult to make eat.

At first she was confined to bed, where she lay very indifferent to her surroundings, constantly grimacing and going through a ritualistic sign and mumbling "innocence." Her hands showed the glove-like dark rough pigmentation and there was some discoloration around the neck. Her mouth was dry and sore, but perhaps from insufficient liquids. An estimate of her weight was about 100 pounds. The skin changes on the hands and around the neck, however, seemed to fully justify a diagnosis of pellagra.

She was given what food the nurse could coax down her by putting it into her mouth. The dried yeast was even more difficult to give her and she got very irregular doses at first. Within a month, however, she was very much improved in her nutrition, and she was taking more food and more regular doses of yeast, but never regular. As she became able to get about she would have sudden outbursts of temper, wanted to wash her hands

constantly, and continued her mutterings of "innocence" with the grimaces and stereotyped motion of her hands. After four months her weight had increased to 134 pounds and her general disposition improved and her skin entirely cleared of the residual signs of pellagra. She continued her stereotyped hand motions and was considered a hebephrenic precox. Her husband felt that she was as well as she had ever been since her first attack seven years previously. She has written cards to the nurses and they show her to be getting along much better than was anticipated.

Case No. 10. Examined February 12th and 26th, 1927.

Negro boy 23 years of age, living in adjoining county. He came by the hospital as a semi-mendicant and wanting some medicine for pellagra, from which he had suffered for five months. He had taken three courses of a secret remedy without benefit and felt he had gotten worse. Mentally, he was depressed and very much retarded. An inspection showed him to have the very black rough pigment eruption on the hands, extending just beyond the wrist and almost raw from large scales. His mouth was sore and there were marks across the nose and around the neck. He was also sore under the scrotum and under the bottom of his feet and between his toes. His weight was 114 pounds. He was given a pound can of the dried Brewer's yeast and told to take it in teaspoonful doses three times a day and to report back to us in two weeks. At the end of the two weeks he had gained fourteen pounds, his skin was almost completely healed and he appeared bright and alert mentally. Two weeks later he sent a dollar for another can of yeast and reported to be working regularly.

CONCLUSIONS

Certain psychoses show marked improvement with increased body weight or improved nutrition, especially the toxic exhaustion types, whether from endogenous or exogenous toxic causes.

Skin eruptions, characteristic of pellagra, were apparently healed in three cases concomitant to an improvement in nutrition as recognized by a prompt increase in body

weight. Improvement in the mental state of these three cases was also noted.

The improvement in nutrition in all of the cases reported here was very prompt and coincident to the addition of dried yeast, (Brewer's strain) to the diet of these patients.

The value of dried yeast as an addition to the food mixture for nasal tube feeding is suggested in case number five.

The three cases of pellagra are presented as additional confirmation of the claims of a specific value of dried yeast in this disease.

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—Milledgeville, Ga.

DISCUSSION ON PAPER OF DR. ALLEN

Dr. R. C. Swint, Milledgeville: I am very much interested in this paper of Dr. Allen's and wish to thank him for making this report. However, we could not stand with him on the hypothesis that food deficiency is the cause of mental disease other than the type associated with pellagra or dependent upon or caused by it. Of course these observations he has reported could be of no conclusive scientific value without control cases, but as the mental disease problem is one that is given very little thought and attention by the general practitioner, it is well to have these reports and observations brought to our attention, as every physician of much experience must realize that about one out of every six patients he comes in contact with is either nervous or has a mental factor in his illness.

The question of administering yeast in the treatment of pellagra came about rather accidentally. This discovery was made by Dr. Joseph Goldberger, a surgeon in the U. S. Public Health Service. Dr. Goldberger came to the conclusion, or suspected that the black tongue of the dog was analogous to pellagra in human beings and he began to make a

study with this idea in mind and began to experiment on dogs. Some one in the Public Health laboratory suggested that it was difficult to get the dogs to eat and as yeast was a gustatory stimulant that they sprinkle some yeast on the dog's tongue to stimulate the secretion of saliva. The yeast was tried and found to have a beneficial effect. Finally it followed that the dogs liked it. Then they began to feed the dogs with it and they began to improve and get well. Then he thought if the black tongue in dogs was analogous to pellagra in man, and if yeast would cure the black tongue it would cure pellagra. With this in mind Dr. Goldberger began to give yeast to patients having pellagra with good results.

In the other types of mental disorders not associated with pellagra, it has been our experience that the mental symptoms do not clear up from the treatment. I recently reviewed twenty-two cases at the Georgia State Sanitarium that had been treated with yeast. Of this twenty-two, five were cases of psychoses with pellagra and they recovered within a few weeks. Most of the other cases were relieved of their physical symptoms of pellagra, but their mental symptoms remained active. I am wondering if Dr. Allen would not have gotten the same results in some of his cases with his dietary treatment without the yeast addition, particularly those cases having no evidence of pellagra.

Dr. H. D. Allen, Jr., Milledgeville (closing the discussion): I would just like to add in closing that my hypothesis was adopted to these ten cases which I know is a very meager series. However, the basis of my paper was followed somewhat after the method of Minot and Murphy in reporting their cases of pernicious anemia. We do not know what the ultimate outcome will be in any psychosis. We do feel that it is very unsatisfactory in most of the cases although the outcome never is as certain as that of pernicious anemia. However, it is very difficult to get up a series of control cases. We have got to be constantly doing something for the patient and the enthusiasm with which we use a new remedy may certainly be of greater value than the remedy itself because we are making direct suggestion to the patient that they get well under what we are giving. These cases seem to me to have gained weight more rapidly than is usually expected. That is as much as I can say. I believe, however, that my three cases of pellagra would have gotten well with just the yeast. I feel in the whole group the nutritional improvement as well as the mental and physical improvement in pellagra cases seems to be more readily gained by the addition of yeast to the diet.

POPULAR AND PROFESSIONAL MIS-
CONCEPTIONS REGARDING
MALARIA*

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Bainbridge*

PROLOGUE

When I was to talk about the transmission of malaria some months ago, I began preparing in my mind, an apology for talking about what every one understood so well. But before I made the talk numerous people told me about catching malaria from eating fish caught in stagnant ponds, chewing sugar cane, drinking bad water, eating rotten ended water melons, green scum or drying up of ponds, night air, flies, etc. Some prominent doctors assured me that mosquitoes raised in the vines about their porches. I was asked to make an agricultural college quit raising cow peas, because they bred mosquitoes. I have heard doctors advise their patients to put down deep wells, as the water from shallow wells produced malaria. Many doctors advise the people to clean up the tin cans to stop malaria. A prominent judge assured me that we are all wrong, but his Atlanta physician, who had proved 65% of all Atlanta people have malaria, has a lucrative practice treating malaria cases from the mountains of Vermont, from Canada, and from other Northern points.

But the most surprising thing of all was that I followed on the program a distinguished United States Senator, (who has been mentioned as a candidate for president, and for whom I hope to be able to vote) who stated that he had heard that some malaria was transmitted by the sting of a mosquito, but that, of course, he did not suppose it was all transmitted in that way. So I stated in my talk on that occasion that I was never going to presume that everybody knew the simple facts about malaria again.

So we will now run over a few facts that everybody ought to know.

First:

Malaria is caused by little living animal beings in the blood, and by *nothing else*. These beings enter the blood cells, grow in and feed on the cells, multiplying into large numbers which break out of the dead cells with their toxins, enter new cells which they destroy in the same way, until the billions of parasites, billions of doses of poison, loss of billions of red cells, produce pain, high temperature, anemia and weakness. No disease not caused by these parasites is malaria. It is not caused by bad water, air, food. Nothing causes malaria but an animal being, having as definite a mode of existence as a boll weevil.

Second:

This parasite is put in by a mosquito and by nothing else. It lives in only two places in the world: the human blood, and in the mosquito. It dies immediately if placed in water, so you cannot drink it in. It cannot live in any food, so you cannot eat it in. It cannot live in air, so you cannot breathe it in. You can get it only when an infected mosquito inserts her bill into you and *spits*.

Third:

The only mosquito that can carry this parasite is the anophelene, and the only variety of anophelene to be feared in Georgia is the *Anopheles Quadrimaculatus*. The other varieties of anopheles in this state are the *Punctipennis* and the *Crucians*, and they are not to be feared. All the hundreds of other noisy stinging mosquitoes are harmless.

Fourth:

The Quads raise only in ponds, and not in running streams, tin cans, barrels, tubs, septic tanks, wells or other holes dug in the earth as the borrow pits made in road building. The clean-up campaigns for removing cans and trash are good for comfort, but they have no influence in preventing malaria. The Quad prefers water in a limestone country, and the limestone areas and the malaria areas of the state are the same. Lime-sinks and other ponds in limestone areas breed Quads heavily, especially if there is shade, grass and floatage in the ponds. And while the Quad does not breed in a running stream, if you dam up a running stream, especially in a limestone country, you have the most favor-

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

able place of all for breeding. All water power companies, water mills, etc., in south west Georgia have great problems in preventing malaria. In south east Georgia, where the country is filled with ponds, sloughs, and holes of a sourer water the Quad is nearly absent. Mayne found the Okefenokee Swamp, especially Billy's Island, free from Quads, and malaria, though there were many other mosquitoes. *Anopheles Crucians* breed heavily all over south east Georgia, but do not spread malaria. *Anopheles Punctipennis* breed all over north Georgia, even in swift mountain streams, but do not spread malaria. Occasionally, even in north and north west Georgia, you will find isolated Quad breeding and malaria foci, as near Cedartown, Rome, and even fifty miles south of Chattanooga.

In short, you cannot have malaria without the parasite in the blood. You cannot get the parasite in the blood without Quads. You cannot get Quads without ponds.

No ponds, no Quads, no malaria.

Fifth:

The Quad gets her malaria from people who have malaria. A million Quads might hatch out of a pond and sting a million people, but they would not infect any of the people. But if some of the people had malaria already, the Quads would suck their stomachs full of malaria blood. Still these Quads would be harmless for ten days, for the parasites would have to undergo sexual union, and multiplication in the walls of the mosquitoes stomachs, and it takes ten days for the young parasites to grow and pass up through the mosquitoes tissues to the spit glands. But after this ten days is up she may spit parasites into some one every time she stings. So even if a mosquito gets malaria from me, it is ten days before she can give it to you. A mosquito must be over ten days old before she can transmit malaria. This is the basis of LePrince's excellent method of preventing malaria by destroying all the mosquitoes in the house daily.

Sixth:

Malaria is not transmitted in the winter in Georgia, but the parasite lives in the blood of uncured persons all winter, and when frost comes and the mosquito gets chilled, the parasite will no longer develop and produce ma-

laria, even if the mosquito is not killed. Malaria lives over winter in people, not in mosquitoes. The spring outcrops of malaria are recurrences of uncured cases of the year before. In dissecting hundreds of mosquitoes at Leesburg, no infected mosquitoes were found until late in June. It would seem then, that oiling ponds to prevent malaria might be safely suspended from the first frost in the fall until May of the next spring.

Seventh:

While the parasites multiply in the blood, this takes place in the blood of the spleen, and possibly in the bone marrow and other deep tissues. As Dr. Darling used to quote, "The tragedy is enacted in the spleen. In the peripheral blood we see only the overflow." You might say it is a disease of the blood in the spleen. How the spleen detains the corpuscles containing parasites, I do not know. In talking to children I tell them that the spleen acts as a strainer. As we squeeze berries in a sack, letting the blood of the berries run through leaving the seed behind, making the mass of the sack larger, so the spleen in some way lets the blood go on, retaining the parasites and getting larger from these parasitic seeds.

Eighth:

Some Ways of Diagnosing Malaria

First. Enlarged Spleen. Almost any case of malaria of any severity has an enlarged spleen. Any doctor will find a large hard spleen extending down toward the umbilicus. But comparatively few men in general practice can find a small enlargement, and they will not be likely to learn how unless they have instruction in a good technique, and plenty of cases to practice upon. But when you become proficient, nearly all cases of malaria, acute or chronic will evidence an enlarged spleen.

Second. History. A person who has not had acute fever, having, at least in the beginning, a periodic tendency, with chills, probably has not malaria. Chronic malaria probably does not originate as such. Cases of acute fever incompletely treated with quinine, or suppressed by the spleen or other controlling forces in the body, may become chronic, with various symptoms other than fever.

Third. Presence of Quads, or their larvæ.

If fever appears in a house in which Quad mosquitoes can be found hiding in the dark places in the daytime, or if the larvæ of the Quad mosquito can be found in nearby ponds, it is strong presumptive evidence of malaria. If in addition there is a history of other cases of malaria, and the presence of an enlarged spleen, the diagnosis is well nigh absolute.

Fourth. The Microscope.

When a stained blood smear is examined and the characteristic parasites are found, we have one of the most satisfactory and absolute diagnoses known to medicine. But unfortunately, we do not often find them. "The tragedy is enacted in the spleen, while in the peripheral blood we find the overflow." And there is no overflow as long as the spleen is able to control the disease. Many cases having acute chills and fever and taking no quinine will show parasites, but in the vast majority of true malaria cases the microscope finds nothing. Dr. Darling found in Lee County that among a large number of white children, all with enlarged spleens, history of recent acute malaria, and Quads in the houses, there were only 10% positive with the microscope. I duplicated these results in two other counties. And yet we know that all these children had malaria, with parasites in the spleen. But where the infection is less intense than it was there, a much smaller per cent will be found positive with the microscope. If a little quinine has been taken, the slide is nearly always negative, even with acute fever. Many doctors send a smear in, and if it is negative they say, "I have proved it is not malaria." They have proved nothing of the kind. Other doctors treat many of their cases as having a "touch of malaria," though these patients never have had an acute fever, enlarged spleen, or been exposed to Quads. These cases are not malaria. City people who have none of these symptoms or histories call at our laboratory almost daily and want their blood examined for malaria. We always examine, but we have never found one positive. I have out a standing offer of reward in our town for a positive blood from a case not having had acute malaria. And another reward for a person who has a positive blood, but has never spent the night out of town in some

section where Quads exist. Most Georgia towns are drained, and have no ponds, no Quads, and no malaria, unless acquired elsewhere.

EPILOGUE

Time is up, but I have probably said enough to show that malaria is a disease caused by an animal parasite in the blood, and by nothing else. That in Georgia, at least, it is put into us by a Quad mosquito and by nothing else. That the Quad raises in ponds, and in nothing else.

That the spleen keeps the parasites out of the peripheral blood, except when the infection is too intense for the spleen to control.

That the microscope diagnoses a few active cases, but the majority of cases are not diagnosed by the microscope.

That a combination of enlarged spleen, history of periodic fever, and history of exposure to the sting of Quads make a strong diagnosis, and in the absence of microscopical evidence, a diagnosis without these points is not justifiable.

That chronic malaria does not originate as such, but is a partially controlled state following acute malaria.

That if we depend on the microscope alone we will miss malaria more than 90 per cent of the time, and

That if we do not give weight to the spleen examination, history of former acute fever, and history of exposure to Quads, we will continue to go wrong as we are now doing, oftener than we go right.

DISCUSSION ON PAPER OF DR. FORT

Dr. G. M. Murray, Atlanta: Dr. Fort has just addressed us on the subject of malaria. It is a disease which I believe is the most malignant health menace to humanity today—excepting none. When its malignant behavior is better understood by the medical profession in general and through us by the laity at large, a far different concept of malaria will prevail. Dr. Fort has taken up, of course, the source of malaria. I think the term malaria in itself is indicative of a long-standing misconception as to the source of the disease. I propose that we give this disease a term which is proper and at the same time suggestive of obstinate parasitic blood infection. I have also come to the conclusion

in addition to the misconceptions regarding its source, as said by Dr. Fort, that the most prevalent misconceptions are: as to its prevalence, its peculiar manifestations, its elusiveness, its insidiousness, obstinacy, progressiveness—and to sum up—its malignancy. I believe as Dr. Fort does, that there is no other way for the communication of the disease, but I think we had better qualify it in so far as we have at present found out. That leaves us open to other and later views if some one advances a theory otherwise, but certainly at present it is only through the *Anopheles* mosquito. I think, too, that limestone soil has its effect, but we must remember that falling and decaying vegetation can also change the reaction of the streams. I believe, too, that the absence of the parasites is in direct proportion to the chronicity; in other words, the great preponderance of slides will show negative for malaria although the patient shows positive signs and symptoms. Some of them are perhaps not typical but certainly more valuable than the microscopic examinations.

I believe the successful fight on malaria is necessarily an educational one, and this can not be accomplished by misleading propaganda, although it is prompted more or less by optimism. I think there is too much maudlin optimism. Optimism does not offer the proper concept. I think the safest and sanest procedure is to give the general public the proper concept of what malaria is. I think the fight on malaria is through preventive and prophetic medicine.

Dr. Fort spoke of the history of cases. I think the history is most important, though many of the cases give no history; but a history of one case of malaria in a family renders the other members of the family under suspicion, because they live under the same home conditions and no one can tell when the infection takes place, but with one case of malaria in a family even though there are no symptoms among the others, each should be examined though not necessarily treated.

I was interested in Dr. Fort's paper inasmuch as I had hoped to give a paper, the subject to be "A Realistic Attitude toward Chronic Malaria rather than an Optimistic or Pessimistic View." If we can get a realistic attitude we will accomplish something; but if we continue to have too much optimism, we will not.

Dr. J. G. Dean, Dawson, Ga.: I have been very much interested in listening to Dr. Fort's paper, especially for the reason that he has told us that the Malarial mosquito occurs only in ponds, and that these ponds must be located on land of a lime formation.

I live in Dawson, Terrell County, which county adjoins Lee County, and Dougherty

on its southern border. In all this section there is no small amount of lime formation, and there occurs not a few ponds in certain sections, which ponds are in this lime soil.

Almost within the limits of Dawson there were originally three of such ponds, all of which happen to be situated on land which I now own, and cultivate. When I purchased this land these ponds had been partially drained by ditching, but not by any means sufficiently. On the side of town near these ponds, which was easterly, there was every year quite a tendency to Malarial diseases, more than in other parts of town.

For two reasons I at once, after becoming owner of the land, began the draining of the ponds, cutting ditches varying from five to 12 feet deep, thus giving myself more valuable land, and adding no little to the health of the town. Now this side of town is quite as healthful as is any other part thereof. Just east of the town, about one and a half miles, there was also another pond, a mill, and gin pond. Near this latter there used to occur what we then knew as "pernicious," or hemorrhagic Malarial Fever, but now is referred to as "Black Water" Fever.

This pond has also been done away with, so that the neighborhood around it is now as healthful as any other locality in the county.

For quite a number of years, as a member of our City Aldermanic Board, it was my privilege as Chairman of the City Health Committee to report to the Federal Government the annual mortality record of Dawson. This, I am pleased to say was not such as to be ashamed of. At one time, for instance, I remember having reported the mortality among the white residents as having been one-half of one per cent.

I feel that Dr. Fort has told us something which is not only interesting but highly important. I am sure he has formed his conclusions on unmistakable investigations.

There may be others of us who by thinking carefully of our surroundings may discover some such conditions as those described, which may be easily removed, and bring thus into being a more healthful surrounding.

Our particular county has in recent years been, almost everywhere cleared, and drained, and now enjoys a health record difficult to excel.

Dr. E. T. Coleman, Graymont: "I want to thank the essayist for this very splendid paper, and endorse it as I feel a very great interest in it. Is there any method of controlling the raising of mosquitoes in these ponds aside from drainage; and what effect does the minnow have on these ponds, and what specie of the minnow is the most effective.

Dr. M. A. Clark, Macon: One of the speakers said we must not be too optimistic about the matter and another speaker gets up and tells you that he has ponds that used to breed mosquitoes and now are under excellent cultivation. How can you help but be optimistic?

This paper is so complete that there is nothing to add. I want to stress what he said about relying on the microscope for diagnosis. Not infrequently the report is wrong about what the microscope shows. Perhaps the patient as just suggested to you, has malaria and such a negative report makes it difficult for the doctor to manage. I think we are fortunate in having that paper brought before us, not that we did not know those things but we did not think of them in that way. It helps us in the education of our people when we get home. I am glad that he is teaching that in the state. I speak more to express appreciation of his efforts because I feel we owe him that much.

Dr. M. A. Fort, Bainbridge, Ga., (closing the discussion): I am informed that up to date there have been only four positive slides examined at the State Laboratory this year. Two of these were sent in by me for confirmation. No doubt many of the hundreds of cases represented by these slides are positive for malaria. Therefore we must have some means of diagnosis better than the microscope.

Dr. Dean mentioned Dawson, and the control he secured by draining some ponds there. He did a great service to the community, but got value received in the increased value of the drained land. I surveyed the entire county in which he lives—Terrell. I visited all the schools and examined the spleens of all the smaller children. This I did by letting them lie on a bench, head to my left, legs flexed at the knees. Slipping my hand through or under the clothes to the border of the left ribs, the spleen could be felt if large. If not felt at first the child was required to breathe deeply, when the spleen would slip down under the fingers, and retreat on expiration. These small spleens cannot be diagnosed without training. You must be trained in a good technique, and then have cases to practice upon. I was slow learning, but since Dr. Darling pronounced me qualified, I have examined not less than 12,000 spleens.

Terrell County illustrates how a survey will

demonstrate the malaria areas. In the southeast and east, and a little in the southwest are limesink ponds, general enlarged spleens, and at proper seasons, malaria is general. From Dawson to the northwest, enlarged spleens are rare, as are lime sinks and histories of malaria.

Incidentally, it was in Dawson that I found 75% of the small children with enlarged spleens, and no malaria. They had just recovered from measles. Nearly two years after this discovery was published, the Journal of the A. M. A. had an editorial commending a doctor in a children's hospital in St. Louis for having made this "wonderful" discovery there.

Most countries can be freed from malaria, but you must understand the subject or you will waste money as those fellows did in the northwest. They spent much money in draining a lot of swamp because they heard that we did that down south. They did no good, because that kind of mosquito laid her eggs in the fall in fields and other depressed places, the snow covered the eggs, thawed in the spring, and then the mosquitoes hatched out.

We must first locate the malaria, using history, spleens, bloods. Next locate breeding, by dipping for larvæ and identifying the quads with the microscope. Do not try to control it till you find it. Not all ponds breed quads. But having found a breeding pond you may use one or all of the methods—draining, oiling, Paris green by hand or from airplane, minnows combined with clearing.

One illustration of an inexpensive control: Monterey Hole in the northwest corner of Colquitt bred quads and other mosquitoes so that citizens could not sit on their porches in that part of town, and had malaria every year. This hole was very deep with coontail moss and other growth extending for 20 feet from the border toward the center. We spent half a day with two negroes simply raking out the growth and then leaving it to the gambusia which were very thick. In one week the minnows had all the larvæ, in three weeks the people were sitting on their porches at night, and had no malaria all that year. This had not happened before since the town was built.

INTESTINAL OBSTRUCTION— TOXEMIA IN AND TREATMENT OF*

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In the surgical treatment of acute intestinal obstruction we are often prone to overlook or underestimate the toxemia, which is the most frequent cause of death. It is for the purpose of emphasizing this phase and its treatment that this paper is presented.

HISTORY

Three classical theories of the cause of death in acute intestinal obstruction have been evolved during the past fifty years. They are: first, the bacterial theory; second, the nervous or shock theory; and third, the toxin theory. The first two theories have been practically eliminated by most observers.

The toxin theory has been considered for many years but it was only after the work of Stone, Bernheim and Whipple, in 1912, that any definite proof was offered to substantiate it.

While attempting to collect some pure pancreatic juice and duodenal secretion from dogs these investigators were struck by the fact that all the dogs died in from twenty-four to sixty hours. The lower portion of the duodenum from a point just distal to the lower pancreatic duct to the upper jejunum was isolated and tied off. The alimentary canal was re-established by anastomosis of the stump of the duodenum to the upper jejunum. An explanation of the cause of death in these dogs was then attempted.

The material in the closed loop was collected and a careful chemical and biological analysis made. This material, when injected into the veins of dogs, was toxic. The high loop material was more toxic than that obtained from a low loop obstruction. The material caused a profound splanchnic paralysis with extreme congestion of the walls of the small intestine. This toxic material when injected into normal animals produced many

changes similar to those found in the animals with closed loops—namely, low blood pressure and temperature excretion of large amounts of fluid into the intestinal canal and fatal shock. The toxic material was not injured by heating at 60 degrees C for any length of time. It was not impaired by prolonged autolysis, by pancreatic digestion or bacterial fermentation. No such toxic substance could be obtained by autolysis, digestion or putrefaction of the normal intestinal mucosa. The injection of sublethal doses of the toxic material seemed to protect against subsequent large doses and probably prolonged life after a closed duodenal loop had been established.

The autopsy findings in such a dog fatally poisoned by the injection of the duodenal loop material are very constant. The blood shows considerable concentration. The heart contains but little blood as most of it is to be found in the splanchnic area. The blood usually clots very slowly or not at all. The serous cavities, heart, lungs and kidneys—show nothing of interest. The spleen, liver and pancreas show engorgement and the liver may feel very tense and friable. The splanchnic veins are very conspicuous. The duodenum, beginning one centimeter below the pylorus, shows deep purple, velvety mucosa. The purple mucosa may be coated with more or less mucus. The duodenum is filled with a thin watery fluid. The large intestine usually has a normal appearance. Histological study shows nothing of importance in the viscera. The purple color of the mucous membrane of the intestine is due to engorgement of the villi. The toxic substance seems to act particularly on the splanchnic vessels and this is probably the dangerous feature.

Assuming the formation and presence of this toxic material, the next point of interest was to establish the source of its formation and the method of absorption. The presence of a toxin in the intestine is not enough to prove its relationship to symptoms, as absorption is quite as essential as elaboration in the production of intoxication. Whipple states that nothing produced in the intestinal tract can be directly concerned in the intoxication of intestinal obstruction because these substances cannot be taken up by the

*Read before the Medical Association of Georgia, Athens, Ga., May 12, 1927.

intact intestinal mucosa. Therefore he regards the toxic substances as being secreted by the mucous membrane. Under obstructive conditions that portion absorbed into the blood is the active cause of death, the portion secreted into the lumen being inert so far as the host is concerned. Cannon and Dagstedt of the University of Chicago believe that the essential toxins are formed in the lumen of the obstructed bowel. They state that the normal mucosa has a selective protective action against the absorption of such toxins. Under obstructive conditions, however, especially distention, circulatory disturbances and tissue necrosis, absorption does take place with consequent intoxication. Stone suggests that those toxins found in obstructive cases and actually the cause of death are absorbed if introduced into the normal bowel. The first of the material absorbed produces increased tone and peristalsis of the intestinal musculature. In the normal open gut this hurries along the bulk of the toxic material so that not enough of the toxin is absorbed to cause serious symptoms. In the obstructed gut, vomiting and increased peristalsis result from the same cause, but the mass of the toxin is not thereby removed. Instead stasis in the bowel leads to the formation of more and more toxin, more and more of which is absorbed.

The path of absorption has been experimentally worked out by Costain. He tied off segments of intestine in a dog, producing closed loop obstructions, and at the same time ligated the blood supply to this area. In 24 hours the dog was dead and the segment found black, thin as paper and shriveled up to one-fourth normal size. It was lying free and not adherent to any other structure. The fluid in the gangrenous area could only have been absorbed by the lymphatics which had been left intact. The opposite picture was seen in a dog in which an area was obstructed and not only the blood supply but also the lymphatics were occluded. In 24 hours this dog was alive, not toxic, and the obstructed bowel was four times normal size and filled with bloody fluid. Until it ruptured this obstruction was not fatal because the lymphatics were blocked. Working on the theory that toxic absorption takes place

through the lymphatics the thoracic duct was drained in the various forms of obstruction. It was found that many of the dogs lived if a lymphaticostomy was performed and drainage was sufficient.

To summarize our knowledge up to the present time, certain fairly definite conclusions may be drawn.

1. The cause of death in intestinal obstruction is a form of chemical intoxication.
2. These chemical toxins are developed in the process of protein disintegration.
3. The effect of these toxic chemicals is to cause a fall in blood pressure, temperature disturbances, vomiting, delayed coagulation time of the blood, profound congestion of the duodenal and jejunal mucosa, collapse and death.
4. Absorption of the toxin is mostly through the lymphatics.
5. The precise chemical nature of the chief toxic factor is not known.

CLINICAL APPLICATION

The results of this experimental work furnish a scientific reason for the prompt relief of the obstruction and the evacuation of the contents of the obstructed bowel.

For a number of years an attempt has been made to classify patients with intestinal obstruction into three groups, namely:

1. Those seen within twenty-four hours after the onset of symptoms.
2. Those seen after twenty-four hours without marked toxic symptoms and in which the general condition is good.
3. Those seen late and in whom the general condition is bad. (Rapid pulse, vomiting, low temperature and shock.)

The first group is treated by immediate exploration and relief of the obstructed gut. In the second group a long incision is made in the midline; the obstruction is relieved and a loop of the distended jejunum is brought through a small upper rectus incision and a small rubber tube is sutured into the lumen of the bowel. The third group is too shocked to permit a radical operation. Such cases may often be improved by the use of this tube. By irrigating through a small tube inserted into the jejunum the patient may be improved sufficiently to justify an exploratory operation and relief of the obstruction.

Every method for the relief of severe chemical poisoning should be used. Frequent gastric and colon lavages will eliminate much of the toxic material. In addition to this, large quantities of fluid should be introduced into the system. Glucose solution intravenously and normal salt solution subcutaneously are given in an attempt to dilute the toxins and raise the blood pressure. The normal body temperature should be maintained by the external application of heat.

DISCUSSION ON PAPER OF DR. RICE

Dr. W. A. Selman, Atlanta: Intestinal obstruction is a nightmare to the surgeon. It is one of the saddest things I know of after you have done a very good piece of surgery, to see after a short interval, projectile vomiting; vomiting which is not due to the anesthetic, and which increases instead of decreases. You think you have given your patient about all he can stand, and so you are satisfied in your own mind that something else has to be done. Dr. Rice has gone into the cause of this toxic condition, how it is absorbed, and by what it is absorbed. When this picture presents itself the surgeon has to do something and do it quickly, or the patient dies. He also took up the methods of relieving this condition in the different stages. If you recognize it early enough, go in and break up the band of adhesions, or whatever causes it, all is well. I think it is of advantage to call consultation in any post-operative condition where you suspect intestinal obstruction, because a new man coming into the case and studying it can tell you what to do. You are familiar with the case, you have watched it and you think it is the result of something else. It impresses him very differently and he tells you what to do. He tells you to go in and go in quickly. I have had consultants who were of great value to me because they told me to go back into the abdomen and go in before it was too late. If you do go in and have an idea where the obstruction is, I think it is well to go in there and release it. It may be that your peristalsis is still working. When this constriction is released a great many men introduce large quantities of magnesium sulphate or warm castor oil through the stomach tube so as to rush it through. That procedure combined with enemas, gets your patient detoxicated as

soon as possible. If you think the peristalsis is impaired, then, of course, introduce the small tube and, as Dr. Long has well described in his method, a little tube will do as much good as a big one. This is not solid contents in the bowels; it is fluid. The bowel is very much distended with fluid. A catheter sewed into the intestine and brought out preferably through the omentum, through which the intestinal canal may be irrigated is all right. If your ileus has gone on to complete stasis these cases will rarely come back any way, though you have to do something. Another thing, go in through a small incision under local anesthesia; do not let the bowels bulge out through the opening. You do not want to pack an abdomen like this, because pulling out packing shocks a patient. A smooth rubber glove causes no trouble. If you make a small incision, relieve the obstruction and get out, you help to relieve the condition.

It has gotten to be almost a habit of doctors doing operations to give alkalies, glucose and soda. Remember in this case you have already an alkalosis and do not give soda. Give sodium chlorid and glucose but do not add an alkali to an already existing alkalosis.

Dr. R. H. Chaney, Augusta: I think Dr. Rice has called attention to a thing that any surgeon, as Dr. Selman has said, sees from time to time—intestinal obstruction. The fundamental thing to my mind is to find out why the upper duodenal secretions when they get blocked are so very toxic. That is something we have been working on. As far as the upper duodenal secretions are concerned, I do not know of any one who has ever found their nature.

There is one interesting thing that Dr. Rice did not work out in an experimental line. If you take any upper duodenal section you do not have to have its loop absolutely blocked. If you take a section in between the loop and simply reverse the loop, you get a reverse peristalsis in the section of the bowel and you have the same symptoms of toxemia with a high intestinal obstruction resulting. Also, you can take this loop out, reanastomose this loop to this one (indicating on blackboard), bringing it together and then needle this loop. If it is needled with its peristaltic line in that direction you have no symptoms arising from closing this loop. If you turn it around so the peristalsis is reversed, you have this train of symptoms developed. Whether this secretion is formed in the loop of bowel and is toxic or whether it comes from the secretion in the mucosa or whether in the loop itself due to disintegration is difficult to say. Blocking completely isolated loops as I have done

many times; from six to twelve inches of the upper duodenum, wash out the loop, and attempt to sterilize the mucous membrane by taking out the secretion from the isolated loop, and find as far as the culture was concerned that it was free from bacterial growth and yet the secretion from that loop introduced into an animal produces highly toxic symptoms.

The question of treatment, when you see the classical symptoms I do not think there is any question of what to do. The earlier you recognize the symptoms the better. Following operation the thing is to release the obstruction and prevent this high toxemia developing. If you have a high obstruction or a low obstruction anywhere in the small bowel that remains for a period of time, your patient is bound to die. For instance, in an experimental animal if it is high the animal will die within three to six hours; if it is low, the animal will die in from thirty-six to seventy-two hours. The same is true in clinical cases. When an obstruction becomes complete, whether it is due to the fact that toxemia does not develop until back pressure becomes high in the small bowel is difficult to say, but you know that you have to release the obstruction and an enterostomy I believe offers a greater life saving measure than any other method where you have a high intestinal obstruction taking place. The same thing is true of lymphaticostomy; as a method of treatment in high intestinal obstruction I have my doubts. Following the more recent work of McGuire I have been interested to know whether this had a place in the treatment of peritonitis. I believe myself the treatment of peritonitis which produces intestinal stasis is to do an enterostomy and drain the loop of bowel. I fail to recall at the moment the name of one of Sweet's pupils who showed that the amount of toxic obstruction in the case of peritonitis was apparently proportional to the pressure that exists in the intestinal loop. He further showed that in experimental animals enterostomy served a greater purpose and had a better result than lymphaticostomy. I think we have to recognize clinically that we have an obstruction it is a surgical lesion.

Dr. E. C. Thrash, Atlanta: I wish to discuss this paper from the standpoint of protein disintegration and intoxication. It seems to me that is what this extreme intoxication and death result from in many of our pathologic conditions. It is simply our own toxin and poison that are putrefactive. Protein intoxication and disintegration may result from peritonitis and changes from bacterial invasion of its protein substance. Of course in

all bacterial infections we get a toxin both from the bacteria and the tissue changes produced in the host. Biologically the protein intoxication that we see in the various forms of anaphylaxis is exactly the same. The tissues themselves in acting upon these proteins develop a process of action that is so rapid in trying to handle large volumes of proteins that changes take place and poisons are produced, causing anaphylaxis. It appears to me that the bacterial changes and biological changes that we see are similar. A German investigator whose work I was reading not long since has studied tetanus and has shown that death from tetanus is exactly the same as death from intestinal obstruction. He worked this out so carefully until the amount of disease in proportion to the weight of the animal could be estimated. He has shown that a patient will die from protein disintegration and not from lack of respiratory activity. I have one case in mind. The child had diphtheria and then developed a pneumonic condition of the lung. He developed a convulsion and apparently death would ensue very promptly. I did not know at that time that there had been a destruction of part of the lung that produced it but watching the patient I observed in less than twenty-four hours that gangrene had developed in the lung and it was the shock from this gangrenous condition that brought on the convulsion. There was a pronounced toxemia which does not appear with the ordinary pneumonic condition. The lung was opened and drained very promptly. Multiple abscesses had begun to form. The patient made an uneventful recovery.

We must think of this in many of our diseased conditions, not only in intestinal troubles. You get it in pneumonia. Wherever tissue dies you are going to get protein disintegration and the patient will be poisoned just as in abdominal disturbances.

Dr. C. W. Roberts, Atlanta: Those of us who have engaged in purely clinical fields of practice, whether medical or surgical or the specialties, have been prone in the past to think of men working in laboratories as being set apart from the ordinary practice of medicine in so far as their discoveries admitted of practical application in the sick-room. I believe that we are beginning to recognize finally that these men are bringing to us an explanation of the cause of death in a certain percentage of our cases and in which groups we have been unable in the past to control or decrease the death-rate. The paper as brought to us by Dr. Rice is a very interesting one. Intestinal obstruction, either primary or secondary, has perhaps the highest death-rate of

any surgical condition affecting the abdomen, being exceeded only by appendicitis and its complications. The emphasis that surgeons in the past have placed on intestinal obstruction per se, has been the means of perpetuating a half truth. We have thought of the malady purely in terms of mechanics. We have made our attack always upon the supposition that if we looked into the abdomen we would find a gross barrier to the onward passage of intestinal contents and considered our duty to the patient was discharged when we found the band and released it, no matter how great the trauma inflicted in its performance. The operation completed we excused ourselves when the disease progressed to a fatal termination by recalling that the death-rate in intestinal obstruction has always been high and gained solace from a conviction that our experience was that common to surgeons in general.

I think we should get away from that viewpoint. The emphasis should be placed on the new truth, namely, that intestinal obstruction of itself does not cause death any more than appendicitis primary causes death. The cause of death is secondary to the obstruction and results from a chemical change in the body just as peritonitis and its toxins is the cause of death in neglected appendicitis. Thus, we have begun to understand by the help of our laboratory confreres that the treatment of intestinal obstruction must take into account measures designed to neutralize the baneful effects of pathologic chemistry along with the application of surgical operations to straighten twists, release bands and the like. A noteworthy change seen in the blood stream is a depression of chlorides to as low as 350 mg. per 100 cc. of blood probably resulting from utilization of salt in combatting the oncoming toxic process. Large quantities of saline solution should be supplied not less than 3,000 cc. daily and often a toxic process may thus be stemmed and a life saved that would be lost by operative attack alone. We might well say that what we are driving at after all is to get more patients within the first twelve to twenty-four hours.

I think Dr. Rice wants to emphasize that the best thing we can do as a profession is to recognize and operate upon cases of intestinal obstruction early and then we will not have to worry about the late toxic complications. A reasonable amount of care on the part of the surgeon provided we can get the patient in the first twelve to eighteen hours will take the most of them through to a satisfactory recovery. Unfortunately notwithstanding all our educational efforts patients continue to

reach the surgeon late—after the safe period for satisfactory surgery has past. In the second twenty-four hours the problem of safe management is a much more difficult one. Patience and fortitude must be exercised. The toxic picture overshadows the primary paroxysmal colic. Treatment must be directed at relief of the deranged body chemistry as well as at release of the obstructing element. Now the prime thing is to prepare the patient for safe surgery and a little time spent in the administration of saline and glucose followed by a cautious operation under a well chosen anesthetic will lead in this group to better results.

Finally in late cases, overwhelmed by toxic absorption, attempts at major surgical attack only lead to disappointment and a further discrediting of the surgeons' standing. The drainage of the bowel under local anesthesia with strenuous attempts to control the further harmful effects of accumulating toxins should be the treatment of choice. If temporary recovery follows our efforts in this particular a later operation directed at the focus of obstruction will be in order and the patients' chance to survive it will be infinitely improved.

Dr. Lee Howard, Savannah: I want to say a word about a point Dr. Roberts brought out in regard to blood nitrogen. We know that the blood nitrogen goes up and blood chlorides come down in intestinal obstruction. The cases I have followed are rather limited. It is the toxemia we wish to prevent and relieve. Though high nitrogen and low chlorides usually go along with the general condition of the patient, it does not always so follow. I have seen several cases with partial obstructions that apparently were good surgical risks, but with nitrogen high and chlorides low, out of proportion to the clinical condition of the patient. These patients all died after operation for relieving the partial obstruction. So it seems to me that chemistry is rather important if it is a measure of the toxemia, and probably determines what should be done; whether to put in a tube or do a more extensive operation. If the nitrogen is high and the chlorides low, do as little as possible. If they are normal, you can do a major operation if other things are in proportion. So I feel it is important to know what the chemistry is in these conditions.

Dr. K. C. Rice, Atlanta (closing the discussion): I wish to thank the gentlemen for discussing the paper so fully. Dr. Selman brought out many points in clinical diagnosis and treatment which I was unable to include in a short paper. Dr. Chaney discussed

(Continued on page 297)

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to Welfare of Medical Profession of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

AUGUST, 1927

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department**THE CALHOUN LECTURESHIP**

The movement initiated by several friends interested in the Medical Association of Georgia to raise among the members of the Association and friends of the former Abner Wellborn Calhoun a sum of money sufficient to endow a lectureship to be named in honor of this distinguished physician is worthy of the support of every member of the Medical Association of Georgia.

It is the purpose of this committee to raise six or eight thousand dollars which when invested should yield an annual income sufficient to defray the expenses of some physician of note who will appear at each meeting of the Medical Association to deliver a lecture or lectures of interest to all of our members. In this way it would be possible to have at our meetings some of the best medical minds of this country and abroad. The influence of such lectures in stimulating and elevating the profession cannot be measured in the actual expenditure from this endowment.

It is quite fitting that this lectureship should be named "The Abner Wellborn Calhoun Lectureship" in that we are handing down to future generations the name of one of the most distinguished members of The State Association, a man who played a wonderful part in the development of medicine in this state and in the South. A man who unselfishly gave of his time and means to the betterment of medical education and who numbers among his students many of our members. He was and is today the outstanding member of the profession in his specialty; having served well and faithfully the Medical Association of Georgia as one of its past and honored presidents. We can pay tribute to his memory and stimulate interest in our annual meetings by contributing to this fund.

It is hoped that the amount can be raised by the next annual meeting when this sum will be presented to the Council and through the Council to the State Association.

A committee selected to represent the various parts of the state has been chosen to bring the matter to your individual attention; Governor L. G. Hardeman is Chairman; F. K. Boland, Doctors' Building, is Treasurer, and J. E. Paullin, Medical Arts Building is Secretary.

The committee is extremely anxious for every member to contribute toward this fund and we hope that the response will be generous. Checks may be sent directly to Dr. Frank K. Boland or any member of the committee, when due acknowledgment will be made.

PAULLIN.

GEORGIA STATE BOARD OF HEALTH**BUREAU OF VITAL STATISTICS***Atlanta, Georgia*

The State Board of Health announces that for the month of June there were reported 2,529 deaths, from all causes, corresponding to a death rate of 989.8 per 100,000 population. The rate, 989.8 for June of this year is 19 per cent lower than the rate (1221.3) for June 1924.

Although the death rate in 1927 shows a lower trend throughout the United States and

GEORGIA STATE BOARD OF HEALTH

BUREAU OF VITAL STATISTICS

MORBIDITY AND MORTALITY REPORT FOR
MONTH OF JUNE, 1927(Figures for 1927 are provisional,
subject to correction)

REPORTED FOR JUNE

CAUSE	REPORTED FOR JUNE					
	Number		Annual Rate per 100,000 Population			
	1927		Cases		Deaths	
	Cases	Deaths	1927	1924	1927	1924
All Causes	2529	...	989.8	1221.3		
Acute Inf. Con- junctivitis	2	0.8				
Anchylostomiasis	23	9.0				
Automobile Accidents	* 24	9.4	6.4			
Cancer	* 128	50.1	51.6			
Cerebrospinal Meningitis	2	4 0.8	1.6	0.4		
Chicken Pox	44	17.2	20.9			
Dengue Fever	7	2.7				
Diphtheria	33	1 12.9	8.9	0.4	2.4	
Dysentery	130	50 50.9	17.7	19.6	53.2	
Gonorrhea	155	2 60.7	30.6	0.8	0.8	
Heart Disease	* 234	91.6	129.3			
Homicides	* 35	13.7	15.7			
Influenza	94	36 36.8	1.2	14.1	12.1	
Malaria	181	25 70.8	31.8	9.8	17.3	
Measles	249	10 97.4	10.9	3.9	4.8	
Mumps	81	31.7	18.9			
Nephritis	* 287	112.3	106.7			
Pellagra	68	82 26.6	1.2	32.1	16.5	
Pneumonia	50	94 19.6	16.1	36.8	49.5	
Poliomyelitis	1	2 0.4	0.8	0.8		
Scarlet Fever	44	3 17.2	12.5	1.2	0.4	
Septic Sore Throat	15	5.9	0.4			
Smallpox	156	1 61.1	42.7	0.4		
Suicides	* 11	4.3	5.2			
Syphilis	131	30 51.3	52.0	11.7	14.9	
Tetanus		5 0.4	2.0	2.9		
Tuberculosis (All Forms)	70	190 27.4	14.1	74.4	97.5	
Typhoid Fever	236	82 92.4	13.3	32.1	19.7	
Typhus Fever	3	3 1.2	1.2			
Whooping Cough	142	41 55.6	19.7	16.0	26.2	

*Cases not required to be reported.

Georgia for June, 1927, is due to better health conditions, for some of it is, no doubt, due to incomplete registration.

Of the 27 causes shown in this table, nine show increases in their rate for this year compared with the corresponding rates of 1924, the most significant increases being for Typhoid Fever, Pellagra and Automobile Accidents. The combined rate (73.6) for these three causes shows an increase of 73 per cent compared with the corresponding rate (42.6) for June, 1924.

With incomplete registration it is impossible to accurately analyse Vital Statistics for one can not tell whether a lower rate is due to improved health conditions or to incomplete registration. Therefore the State Board of Health urges all who are responsible, under the provisions of our Law, for the registration of birth and deaths, to give this matter their co-operation to the end that Georgia may know how she stands in matters of public health.

TREATMENT OF DIABETIC COMA

Bunce* shows that the grave complication of diabetic coma may be handled successfully by any practicing physician with a minimum of laboratory equipment and experience. It is important to get to the patient as early as possible and to stay with him. The patient should be catheterized at hourly intervals. External heat should be applied, and the bowels cleansed with an enema immediately. The stomach should be washed and castor left in it. Croton oil may be necessary occasionally. Forced fluids, such as water, orange juice, hot clear broth, are indicated. Insulin is given at hourly intervals, more frequently if necessary, until the sugar begins to decrease in the urine. Then the dosage is decreased rapidly to avoid letting the patient come out of coma into insulin shock. Blood sugar determinations at frequent intervals are helpful, and should be made if possible. Other laboratory procedures are helpful, but not essential. The diet is resumed cautiously and relapse is watched for.

*Bunce, Allen H.: Treatment of Diabetic Coma, J. A. M. A. 89: 407 (July 30) 1927—ab.

Canada it must not be assumed that all reduction in the number of deaths reported in

ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION

WASHINGTON, D. C., MAY 16-20, 1927

REGISTRATION AND ATTENDANCE

At the annual session of the American Medical Association in Washington, May 16-20, there was a registered attendance of 6,273, meaning at least 10,000 visitors to the convention city.

OUTSTANDING FEATURES

Among the outstanding features was an address by the President of the United States, Calvin Coolidge, who conferred high praise on the medical profession for its contribution to the social organization. The President and Mrs. Coolidge also held a special reception for physicians, on the White House lawn.

The departments of the national government, including the Army and Navy Medical departments, the U. S. Public Health Service and many medical bureaus, especially those of the Department of the Interior, assembled exhibitions for the visiting guests.

The publicity relative to the session in the newspapers of the country was the greatest ever given to an annual meeting of the Association. This is presumably a reflection both of the increasing interest of the public in the progress of medicine and of the co-operation between the American Medical Association and the American press. Practically all of the great press services and newspapers have special representatives in Washington. Arrangements had been made by the headquarters of the American Medical Association for aiding the dissemination of publicity through these channels, both previous to and during the session.

HOUSE OF DELEGATES

The following statement concerning the proceedings of the House of Delegates is not in any sense complete. A fuller outline has already appeared in *The Journal*, and the complete record will be printed in the official "Proceedings."

At the first meeting of the House of Delegates, May 16, the Speaker, Dr. F. C. Warnshuis, urged continued attention to the problems of nursing education and nursing service in the United States. He suggested an attempt to solve the question of the requirements, qualifications and standards for a capable, competent surgeon and a means to aid the public in making such an identification. He also urged state license and special hospital legislation as a means for protecting the public against poor and incompetent institutions.

The President of the Association, Dr. Wendell C. Phillips, urged continuous attention to the education of the public in matters of health. He suggested a proper system of censorship to safeguard medical publicity. He again recommended consideration of the restrictions placed on physicians in the prescribing of alcoholic liquors.

The president-elect, Dr. Jabez N. Jackson, urged new attention to the problems of medical ethics, and the preparation of a manual which would make clear both to the profession and to the public the intent of the "Principles of Medical Ethics."

The President of the Association appointed a committee, consisting of Drs. Ray Lyman Wilbur, Rock Sleyster, G. E. Follansbee, Harlow Brooks and William Allen Pusey to act on public responsibility, having to do with the relationship of the medical profession to the public.

On recommendation of the Judicial Council, the opinion was adopted that all articles of an educational nature on medical or health subjects intended for the lay press or lay audiences should give expression to the consensus of opinion of the medical profession rather than to personal views, and that such articles should appear preferably under the auspices of the American Medical Association or of one of its component county societies or constituent state associations.

REPORT ON MEDICAL EDUCATION

In considering the report of the Council on Medical Education and Hospitals, the House of Delegates adopted the report of its reference committee. This committee considered as overoptimistic the views of the Council that the present medical schools are adequate to supply places for those wishing to enter a medical school. The reference committee believed that the Council on Medical Education might devote more attention to the problems of the supply of physicians and the question of medical care in rural districts, to the preparation of a statement on the defects in the present situation and to similar subjects.

The reference committee considered it necessary that the present curriculum be reduced materially and that any consideration of a new curriculum should give special attention to the training of general practitioners, with brief courses in the more important specialties. The recent decision of the Council to recognize as suitable for internship only hospitals in which there is a minimum percentage of necropsies was approved and recommended.

INVESTIGATION OF HEROIN

The reference committee on legislation and public relation requested the Board of Trus-

tees of the American Medical Association to have another investigation of the use of heroin made by the Council on Pharmacy and Chemistry in conjunction with some of the scientific sections.

EVALUATION OF REMEDIES

It was recommended that the Association condemn as unwise and futile any attempt to evaluate a therapeutic agent by legislative fiat, referendum, popular vote or any similar method. The conclusion was adopted that such evaluation can be made only by the investigation and decision of experts.

DISASTER RELIEF

A consideration of the report of the committee on disaster relief resulted in the adoption of a recommendation that the American Medical Association urge constituent associations and component societies that have not already established disaster relief committees to do so as soon as possible.

MORTALITY STATISTICS

It was urged by the adoption of a report of the reference committee on hygiene and public health that the attention of the United States Census Bureau be called to the impossibility of comparison of statements on maternal mortality of the various nations and that the bureau be urged to secure a strictly uniform definition of maternal mortality by the bureau of vital statistics of various nations.

COSMETICS

A resolution urging Congress to enact a law to control the manufacture, distribution, sale and commercial use of toilet preparations for preserving and enhancing personal beauty was referred to the Board of Trustees for action.

EDUCATION OF SURGEONS

The reference committee on the speaker's address commended the section having to do with the duty of the American Medical Association to standardize and elevate the practice of medicine and surgery within and without hospitals through its own organization, but not through legislative or other agencies.

APPOINTMENT OF DELEGATES

The reference committee urged that state societies appoint delegates in time to permit the speaker of the House of Delegates to announce the reference committees thirty days in advance of the session, so that these committees might give adequate attention to the various reports of officers and councils before the time of the session.

HEALTH CONFERENCES

The importance of health conferences was recognized and attempts to reduce the duplication of efforts in various fields were encouraged.

CONTRACT PRACTICE

The report of the Judicial Council of the American Medical Association to the effect that there were both ethical and unethical contracts possible, and that each contract must be judged on its own merits was approved by the committee and adopted by the House of Delegates.

CHARGES FOR SERVICES TO INSURANCE AND INDEMNITY COMPANIES

A resolution to the effect that physicians were not under any obligation to provide information to insurance or indemnity companies unless paid the usual fees charged for similar services to private patients was approved and adopted by the House of Delegates.

PLACE OF NEXT ANNUAL MEETING

The Board of Trustees was asked to investigate places for holding the next annual session and to present its approval of two or more cities which, on investigation, have been found to possess ample facilities. The Board of Trustees has authority to change the place of holding the session if for any reason it is deemed advisable.

INCOME TAX DEDUCTIONS

A resolution requesting the promotion of an amendment to the revenue bill relating to income tax, which gives the individual a right to deduct from his income tax the expenses of medical treatment for himself and family was referred to the Board of Trustees, with the suggestion that they in turn transmit it to constituent state societies for action.

NURSING EDUCATION

Reports of the various committees on nursing education were received by the House of Delegates, and it was recommended that the American Medical Association give support in the work of the committee on grading of nursing schools and share in its financial program. The Board of Trustees appropriated the sum of \$5,000 for one year toward this end.

THE PHYSICIANS' HOME

A special committee reported on the need of a physicians' home. The committee recommended that the Secretary of the Association be requested to secure full information in regard to what is now being done by the profession for aged and incapacitated physicians, in various states and cities, so that other states or component societies may take measures to afford relief for dependent, worthy physicians, their widows and their orphans who may be in need. It was recommended that the secretary make a report on this matter at the next annual meeting. The committee was convinced that the need for a national home is not sufficient to warrant the Ameri-

can Medical Association in establishing, managing and sustaining a home.

COLLABORATION WITH HEALTH OFFICERS

Collaboration between physicians and health officers was urged as the only method of meeting the public health situation for the good of the profession and the public.

TRACHOMA AMONG INDIANS

The American Medical Association was urged to continue its affiliations with all the activities of the United States government of the work being done by the national committee for the prevention of blindness for the elimination of trachoma among Indians.

LEGISLATION FOR CO-ORDINATING GOVERNMENT

HEALTH ACTIVITIES

The House of Delegates reaffirmed its approval in principle of the Parker bill, co-ordinating the health activities of the federal government under the direction of the United States Public Health Service. It also adopted the report of the reference committee recommending approval of the Ransdall bill, appropriating \$10,000,000 to establish a national institute of health under the control of the Surgeon-General of the United States Public Health Service.

DISABLED EMERGENCY MEDICAL OFFICERS

The House of Delegates reaffirmed its favorable action of 1922, requesting the passage of the Bursum bill, which relates to the retirement of disabled emergency army medical officers on a parity with all other classes of disabled officers of the World War now on the retired list.

MEDICINAL LIQUOR

The report of the reference committee of the House of Delegates to the effect that hereafter the House of Delegates shall not pass any resolution pertaining to the therapeutic value of anything and that no committee report empowering any such resolution shall hereafter be presented until it has been considered by the Council on Scientific Assembly and the Council on Pharmacy and Chemistry was adopted. Recommendation was made that the special committee on alcoholic liquors be continued and be directed to co-operate in preparing a bill to be presented to Congress correcting the unfortunate provision of the Volstead Act limiting the amount of alcohol used, and providing such regulations as will permit doctors to prescribe whatever amounts of alcoholic liquors may be needed for their patients, and subject to such reasonable restriction as may be thought wise and best after a conference with the head of the Prohibition Department.

It was also urged that the American Medical Association declare its adherence to the principle that legislative bodies composed of

laymen should not enact restrictive laws regulating the administration of any therapeutic agent by physicians legally qualified to practice medicine.

A supplementary report of the Judicial Council that "Every resolution presented relating to the alcohol question shall be referred to the Board of Trustees for investigation." The recommendation was adopted by the House of Delegates.

CAUSTIC POISONS

The House of Delegates approved the resolution extending to members of Congress the thanks of the American Medical Association for passing the Caustic Poison Act of 1927.

FORM LETTERS ON PERIODICAL PHYSICAL EXAMINATION

A resolution asking the Board of Trustees to prepare approved forms of letters or literature which may be sent out by county medical societies to the public to promote the value of periodic health examinations and information that the examinations can be made and records kept by qualified physicians who are members of the American Medical Association, in this manner helping to circumvent the harmful advertising activities of commercial agencies dealing with periodic health examinations, was endorsed by the reference committee and adopted by the House of Delegates.

CONTRACEPTION

A resolution recommending the alteration of existing laws wherever necessary so that physicians may legally give contraceptive information to their patients in the regular course of practice was referred to the Board of Trustees of the Association.

HEALTH HAZARDS IN INDUSTRY

The resolution petitioning Congress to make possible an increase in the personnel and resources of the United States Public Health Service in order that the service may extend its activities in the field of industrial hygiene was referred to the Board of Trustees.

AMENDMENTS TO THE BY-LAWS

Notices of proposed amendments to the By-Laws: (1) defining the powers of the Judicial Council; (2) defining the legislative powers of the Association and the right of the House of Delegates to expel members or Fellows on recommendation of the Judicial Council; (3) a resolution changing the members of the Council on Medical Education and Hospitals was presented and must lie over to 1928 for action.

WOMAN'S AUXILIARY

A motion that the House of Delegates request the Board of Trustees to appoint a liaison committee between the American Medical Association and the Woman's Auxiliary was adopted.

ELECTION OF OFFICERS

In the election of officers, Dr. William S. Thayer of Baltimore was elected President of the Association; Dr. Charles A. Elliott of Chicago, Vice-President; Drs. Olin West, Secretary, and Austin A. Hayden, Treasurer, were re-elected, as were also the Speaker, Dr. Frederick C. Warnshuis of Grand Rapids, Mich., and Vice-Speaker, Dr. Allen H. Bunce of Atlanta, and the trustees, Drs. Edward B. Heckel of Pittsburgh and Rock Sleyster of Wauwatosa, Wis.

The president, Dr. Jabez N. Jackson, made the following nominations to appointments on the various councils: For the Judicial Council, Dr. Donald McCrae, Jr., Council Bluffs, Iowa, and Dr. Frank Cregor of Indianapolis, to succeed Dr. Thayer; for the Council on Medical Education and Hospitals, Dr. Emmett P. North, St. Louis; for the Council on Scientific Assembly, Dr. Frank H. Lahey of Boston. These nominations were confirmed.

THE SCIENTIFIC SECTIONS

More than three hundred manuscripts were read in the sixteen scientific sections of the Association, covering many medical subjects. A complete list of the papers read with the names of the persons discussing appeared in *The Journal of the American Medical Association* for June 11, 1927, beginning on page 1896.

BOOKS RECEIVED

Roentgen Interpretations, A Manual for Students and Practitioners by George W. Holmes, M.D., Roentgenologist of the Massachusetts General Hospital and Assistant Professor of Roentgenology, Harvard Medical School, and Howard E. Ruggles, M.D., Roentgenologist to the University of California Hospital and Clinical Professor of Roentgenology, University of California Medical School. Third Edition, Revised. Contains 326 pages with 226 illustrations. Price, cloth, \$5.00. Publishers: Lea & Febiger, S. Washington Square, Philadelphia.

BOOK REVIEW

Conquest of Disease

One of the most interesting and readable books which has recently come from the press of Macmillan Company is the one written by Dr. Thurman B. Rice on "The Conquest of Disease."

It is written in a fluent, non-technical language, which will be appreciated by the laity and at the same time it contains the scientific facts of the latest advances in research made by the medical profession, which will be of interest to the practicing physician and the student of medicine.

The opening chapter, in which the author discusses "Ye good olde days" in a most happy vein, touching on sayings in the Bible, speaking of the sanitary science among the Greeks and Romans and the sanitation of the dark ages, is of interest to every student of medical literature.

The subsequent thirty-eight chapters are devoted to the discussion of disease spread by intestinal discharge, saliva borne diseases, insect borne diseases and diseases transmitted to or through the skin or mucous membranes. He closes with a thorough and scientific presentation of the latest, most modern methods by which transmissible diseases are controlled. This book deserves a prominent place in any library.

TOEPEL.

Roentgen Interpretation by George W. Holmes, M.D., Roentgenologist to the Massachusetts General Hospital and Assistant Professor of Roentgenology, Harvard Medical School, and Howard E. Ruggles, M.D., Roentgenologist to the University of California Hospital and Clinical Professor of Roentgenology, University of California Medical School. Pages 313, illustrations 226. Philadelphia and New York, Lea and Febiger, 1926. Price \$5.00.

As stated at the outset by the authors the object of this book is to present a brief survey of the field of Roentgen-ray diagnosis covering the essential points for students and practitioners.

The book is well arranged, excellently written and very readable. It combines a maximum of information with a minimum of space used.

One of the outstanding features of the book is the reproduction of Roentgen-ray films. These are well chosen and illustrate thoroughly the subject matter used.

Special mention must be made of the complete bibliography given throughout the book.

This is an excellent book and is highly recommended to all interested in Roentgen interpretation.

MARK S. DOUGHERTY, M.D.

139 Forrest Ave., Aug. 4, 1927.

MARRIAGES

Dr. Thomas Conrad Williams, Americus, to Miss Nettie Claire McMath, at Rees Park, Americus, June 29, 1927.

Dr. Charles Howard Daniel, Atlanta, to Miss Beckham, Concord, at Concord Methodist Church, June 25, 1927.

BIRTHS

Dr. and Mrs. J. A. Redfearn, Albany, announce the birth of a son, James Augustus Redfearn, Jr., born the 22d day of June, 1927.

Georgia State Association of Graduate Nurses

OFFICERS

President.....Miss Lucy M. Hall, R.N. 522 East 40th St., Savannah, Ga.	2nd Vice-President.....Miss Mae E. Burges, R.N. 1108 East Henry St., Savannah, Ga.
1st Vice-President.....Miss Margaret E. Dorn, R.N. 1117 Telfair St., Augusta, Ga.	Secretary.....Mrs. Alma E. Albrecht, R.N. Georgia Infirmary, Savannah, Ga.
Treasurer.....Miss Jane VanDeVrede, R.N. 105 Forrest Ave., N.E., Atlanta, Ga.	

BROADCASTING STATIONS!

Contrary to age old tradition, thirteen must be a lucky number!

Thirteen colonies led the way to our country's forty-eight states and two territories—Georgia being one of these colonies. Thirteen states are now leading the way to greater nursing achievements, and again Georgia is included.

In thirteen offices which are headquarters for State Associations of Nurses information, helpful and reliable, may be secured about nurses and nursing. Is it information as to where training may be secured, or what is taught or required for State registration? Is it where the nurse may practice after graduation from a certain school, or registration from a certain state? Is it courses for post-graduate work or special fields of service? Is it a personal problem involving training or fitness or service? Take it to the headquarters office, and the solution will be attempted or the source of information secured.

If a nurse has perplexities, here is a place where there are people who will do all possible to aid her in solving her particular problem; where an adjustment of almost any kind may be made by the setting in motion a process which will eventually clear up a nursing complication in which the nurse may be involved, but which she may be practically helpless to solve individually.

In short, the nurses of these thirteen states have clearing houses of their very own to which they may go, feeling satisfied and happy to know that here is a sympathetic ear to which they may turn in their desire for adjustment of problems.

It does not seem too early or too presumptuous to say that these headquarters are al-

ready proving of incalculable value and satisfaction not only with regard to the problems of nurses, but to prospective students, to the doctors, and to the general public, who may feel free to inquire about nursing matters.

Executive Secretaries are in charge of practically all of these offices, and several states also have each one district headquarters, with a secretary to look after district matters.

The duties of these secretaries are legion.

In the July issue of the American Journal of Nursing Miss Elise Van Ness has a very interesting article on the subject of State Headquarters. She says: "Asking the secretaries what their daily work is resembles demanding the routine duties for twenty-four hours of the mother of fifteen children. 'I think it would be easier for me to picture what I do not do than what I have done', says one executive secretary; and when you push her further for an answer, you discover there is practically nothing she has not tried. Each one of these women is the spokesman for nursing in her state or territory, and to many outside of the profession she is a sort of personification of all the nurses they have ever known! In her odd moments she is developing the ideals and policies of nursing in her state, studying the changes in public opinion on nursing service, and keeping in close touch with the key nurses of the districts, to learn the special problems of each locality. Every opportunity is seized to make contacts with health groups."

Briefly, this tells the story of the headquarters office and the executive secretary. There is nothing too difficult in the way of a nursing problem for the secretary to attempt to solve, for that is not only a part of her work, but is a distinct satisfaction to her

personally. The problems of the nurses of her state are her own problems, and their solution brings happiness to her as well as to the nurses themselves.

The secretary needs indeed to be a superwoman if she must be judged by the requirements and opportunities of her position. She must be ready at all times to serve in many capacities, from directing the office routine to giving lectures to training school students, or addressing organized groups on health and nursing matters. Prospective students come in for a great share of her time and attention, and assistance with personnel placement somehow falls naturally into her scheme of things. Her office is the media for the issuance of greatly needed publicity on nursing affairs; and the compiling of invaluable statistics on all kinds of nursing subjects is, of course, a part of her job. In fine, she must have a "bird's-eye-view" of nursing, both from state and national standpoints, and must be capable of giving a well rounded picture of nursing conditions, as well as having a genius for assisting with organization and many other problems.

Traveling over her state, as she frequently does, she gathers knowledge of needs and is able to shed light on many questions. She can give advice and suggestions regarding best procedure in many situations, organization of nurses' registries, and for other worth while movements of benefit to nurses and the public; not to speak of suggestions for settlement of difficulties between alumnae associations and the state organization, and other problems.

Through the incentive of the headquarters office, numbers of state nursing organizations are now conducting interesting experiments along special lines, branching out into heretofore unexplored fields in their desire to improve nursing service in their respective states.

Again quoting Miss Van Ness: "Scarcely five years old, in most states the headquarters movement is still a new one; yet the nurses are enthusiastic and many prophecies are already being made that the leadership exerted

by these offices will be one of the powers behind the profession."

Georgia, while not the first to establish a headquarters, is playing a conspicuous and active part in carrying on the work involved. In line of order, this state was the tenth to take her stand, Ohio being the first, establishing headquarters in Columbus in 1917. Minnesota and Maryland came next, opening headquarters offices in St. Paul and Baltimore respectively. Washington, in 1922, was the fourth state to follow suit, and Indiana the fifth in 1924. California, New Jersey, Kentucky and Michigan quickly followed this precedent, establishing offices in 1925, and Georgia was the first in the year 1926 by opening an office January first at 105 Forrest Avenue, Atlanta. Later in that year Pennsylvania and New York did likewise, and the island of Porto Rico also opened headquarters last year.

Many of the remaining states are now either planning to establish or considering the advisability of establishing headquarters, and it seems only a question of time until each one will have such an office to facilitate the work and progress of interpreting nursing and nurses.

Inter-state nursing problems will be automatically reduced, and educational standards raised more rapidly when each State Association has its headquarters. Summed up, nursing service will be made much more satisfactory in each state by co-operation to be secured through the medium of the headquarters, and the standards of professional care so much desired by patients, doctors and nurses should be achieved.

A. P. H. A. REPORT ON COMMUNICABLE DISEASES

A small pamphlet has come to the headquarters office desk that will be of great interest to every private duty nurse and to every physician. It is the Report of the Committee on Communicable Diseases of the A. P. H. A.

Copies can be secured from the Secretary, Mr. Homer Calver, 370 7th Ave., New York City, for 25c each, or at reduced prices in larger lots.

EDUCATIONAL REQUIREMENTS FOR ENTRANCE TO SCHOOLS OF NURSING

So many inquiries come to the Headquarters office regarding educational requirements for entrance into schools of nursing that it seems advisable to include in these pages something about the basis for entrance requirements.

The State Board of Examiners, recognizing the need of securing reciprocity with as many states as possible, established eight Carnegie units as the minimum entrance requirement for accredited Georgia schools of nursing, which equals two years of High School instruction.

In the State Department of Education there are certain subjects required for all accredited High Schools of the state. These are known as the major constants, and include English and Languages, History, Science and Mathematics.

Having decided upon two years or eight Carnegie units of High School education as the basis for entrance, the Board considered that these subjects should constitute in the main the units required. One Carnegie unit is considered one major study, given through 36 weeks for five periods a week of not less than 45 minutes each. There is some variation in the schools of the state in the number of periods a year, according to the length of the school term. For instance, some subjects run for twenty weeks, others for eighteen, some for thirty-six. Two subjects would give additional credits, whereas certain studies may run for sixteen weeks and be a little short. The general average, however, can be maintained.

The Board of Examiners for Nurses has arranged with the Division of Certification of High Schools of the Department of Education to have equivalents determined where there is difficulty in determining them. The Secretary of the Board of Examiners will be glad to have special cases referred to her to be determined. Very often an adjustment can be made which is of advantage to a prospective student and an assistance to the Superintendent of Nurses.

On July 25, in Vidalia Hospital, Vidalia, Georgia, Dr. Thomas C. Thompson passed away after an illness of a few weeks.

In the passing of Doctor Thompson the profession of nursing shares with the profession of medicine a great loss and a great challenge.

His leadership as Chairman of the Councilors of the Medical Association of Georgia gave evidence of the esteem of his confreres.

As owner of the Vidalia Hospital he maintained a school of nursing, and his understanding and estimate of the contribution of nursing to medicine, his progressive educational nursing program for his school, his championship of the cause of nursing whenever there was misunderstanding, endeared him not only to the nurses associated in his own institution, but to the nurses of the entire state.

Georgia nurses had in him a great friend. His sterling Christian character, his human sympathy and understanding, are qualities much needed in medicine and nursing. Because we are so human we mourn his loss, but we should recall that "Blessed are the dead that die in the Lord; they shall rest from their labors, and their works do follow them."

The nurses and doctors of this state are pledged to carry on in his memory!

NEWS ITEMS

The Chattahoochee Valley Medical and Surgical Association held its twenty-seventh annual session at Warm Springs, Georgia, July 12 and 13.

Dr. John W. Mobley, Jr., has located in Milledgeville to practice medicine and surgery, associated with Dr. Richard Binion. He graduated from the University of Georgia Medical Department, Augusta.

Dr. T. H. Johnston, formerly of Florida, assumed his duties as Commissioner of Health for Coffee County, July 15.

Emanuel, Jenkins, Burke and Screven County Medical Societies held a joint meeting on June 30 at McKinney's Pond, south of Midville. Dr. Wm. H. Myers, Savannah, read a paper on Cancer. President, Dr. W. A. Mulherin, Augusta, delivered an address on Medical Organization. Dr. J. W. Daniels, Savannah, gave a Clinic on Nephritis and Diabetes. Dr. Chas. Usher, Savannah, read a paper on Local Anesthesia. Dr. Allen H.

Bunce, Atlanta, read a paper on Classification and Treatment of Nephritis.

The new Central of Georgia Railway Hospital, Savannah, was formerly opened July 1. Dr. Craig Barrow is chief surgeon; Dr. John K. Train, district surgeon; Drs. C. F. Holton and M. J. Egan, company surgeons; Dr. T. J. Charlton, company physician; Dr. Lee Howard, pathologist; Dr. Robert Drane, company roentgenologist; Dr. John S. Hawkins, neurologist and Miss Helen Moir, superintendent of nurses.

Free clinics will be given in Savannah by the Commissioners of Health for physical examinations of all school children before the opening of the fall term.

The Twelfth District Medical Society held its summer meeting at Dublin, July 6. Scientific papers were read as follows: The Necessity of Associating Etiology and Pathology in Classifying Heart Diseases by Dr. E. C. Thrash, Atlanta; Nephritis, Modern Treatment by Dr. J. W. Daniel, Savannah; Demonstration of Treatment of Fractures by Dr. Sidney Walker, Dublin; Diagnosis and Treatment of Pernicious Anemia by Dr. Allen H. Bunce, Atlanta.

Dr. T. P. Mitchell, Lincolnton, announces that he will resume the active practice of medicine in the city and county of Lincoln.

Dr. John R. Mohler, Chief of the Bureau of Animal Industry, U. S. Department of Agriculture, expressed the opinion that while one million head of dairy cattle have been destroyed, out of thirty million tested for tuberculosis, the industry is in better condition than ten years ago when the campaign against the disease was inaugurated.

The Inter-State Post Graduate Assembly of North America will meet at Kansas City, Missouri, on October 17-20, pre-assembly clinics will be held on October 14 and 15.

Doctor Harlow Brooks has been appointed Professor of Internal Medicine at the New York Polyclinic Medical School and Hospital, New York City.

A number of prominent physicians of the state have been selected as a tentative committee to raise funds to be presented to the Medical Association of Georgia at its next annual session to be held at Savannah for an endowment to be known as the Abner Wellborn Calhoun Lectureship. They hope to raise six to eight thousand dollars and give to the Association on a deed of trust, the income to be used annually to defray the expenses of some physician of note to appear before the annual session and deliver one or two lectures which will be of interest to the general practitioner.

The New York Polyclinic Medical School and Hospital, New York, has opened its new Physical Therapy department, under the direction of Doctor Richard Kovacs, Adjunct Professor of Physical Therapy. This department will serve for post-graduate teaching of doctors and nurses, and for clinical work in connection with a large general hospital.

Dr. J. E. New, Dexter, was elected president of the Twelfth District Medical Society at its meeting held at Dublin, July 6, Dr. J. W. Edmondson, Dublin, First Vice-President; Dr. J. Cox Wall, Eastman, Second Vice-President; and Dr. O. H. Cheek, Dublin, Secretary-Treasurer.

The Publicity Bureau of the Indiana State Medical Association issued a bulletin containing ten questions which every well informed man, woman and child should be able to answer, prepared so they may test what they know about the medical science, as follows:

1. Who is called the father of scientific medicine?
2. Who invented the X-Ray?
3. What great French physician discovered that germs caused disease?
4. What relation has scientific medicine to present living conditions in Panama?
5. Who discovered the germ of tuberculosis, diphtheria, scarlet fever?
6. What is the best way to guard against disease?
7. Where and when was the first hospital established?
8. Why must one be educated in the basic sciences before he can practice the healing art?
9. Who first used antiseptic methods in Surgery?
10. What three diseases are preventable by immunization?

The Fulton County Medical Society recently released for publication in the daily papers an article on the advertised "sure cures" for cancer pointing out that the ultimate cause of unrestrained growth of cancer cells is unknown and that many important factors influence the process of development. The article also gives the signs and symptoms together with the treatment which is known to be effective. Any one interested may obtain further information about cancer by addressing the secretary of the Fulton County Medical Society, 32 Howard Street, Atlanta.

Dr. H. G. Huey, Homerville, was host to the Ware County Medical Society in July and gave a fish fry at the club house at Dames' Mill. The dentists of Waycross were invited and attended. The afternoon and evening were devoted to fishing and other outdoor sports.

Drs. Rudolph Bell and B. B. Lane, graduates of the University of Georgia Medical Department, Augusta, have been appointed internes at the Atlantic Coast Line Hospital, Waycross.

Dr. Reddin Britt, formerly an interne at the Atlantic Coast Line Hospital, Waycross, is located at the Duval County Hospital, Jacksonville, Florida.

Dr. H. H. Blanchard, formerly of Waycross, removed to Augusta and was elected to the staff of the University Hospital.

Dr. H. G. Huey, Homerville, attended the Southern Pediatric Seminar at Saluda, North Carolina.

The Ware County Medical Society held its regular monthly meeting on August 3. Several prominent attorneys of Waycross were invited. Hon. Q. L. Garrett delivered an address on Co-operation Between the Legal and Medical Professions.

Dr. Joseph Yampolsky, Atlanta, President of the Georgia Pediatric Society, addressed the Cobb County Medical Society August 2 on the use of the Banana Diet in the Treatment of Chronic Intestinal Indigestion in Children.

Drs. James J. Clark and R. C. Pendergrass, Atlanta, announce the addition of a portable X-Ray machine to their equipment suitable for making bedside examinations in the home or hospital, both in the city and adjacent towns.

Dr. J. H. Campbell, formerly of Jefferson, is very successful in the treatment of diseases of the Eye, Ear, Nose and Throat at Dubuque, Iowa, associated with Dr. Gratiot.

The American College of Physical Therapy will hold its sixth annual session for its 1927 Clinical Congress in the Hotel Sherman, Chicago, October 31 to November 5.

Dr. H. J. Vaughn, Atlanta, announces the removal of his offices to 310 Medical Arts Building.

Dr. Ben Hill Clifton, Atlanta, announces the removal of his offices to 305 Medical Arts Building.

Turner County Medical Society should have appeared as number seven on the Honor Roll for 1927. This change in the societies on the Honor Roll is made with pleasure.

Dr. M. A. Fort, Bainbridge, will serve both Decatur and Grady Counties as health officer until next January by an agreement recently effected.

Dr. Harry B. Nunnally, Monroe, has resumed the practice of medicine in the city and surrounding community of Walton County.

The Richmond County Medical Society held its regular monthly meeting at Hotel Richmond, Augusta, on July 20. Instead of the usual scientific program, Dr. W. C. Kellogg read a paper entitled "Hippocrates," and Dr. J. C. Akerman read a paper on "Hebrew and Egyptian Medicine."

Dr. N. Overby, Sandersville, has been elected a member of the American College of Surgeons and the degree will be conferred on him at the Clinical meeting to be held at Detroit, on October 3.

The Sixth District Medical Society held its summer meeting at Hotel Foy, Indian Springs, on July 6th with Dr. W. J. Little, president of the society, presiding. The following scientific papers were read: "Use of Lens Extract in Removal of Cataracts" by M. M. Stapler, Macon; "Congenital Abscess of Uterus—Case Report" by G. H. Alexander, Forsyth; "The Laboratory as an Aid for the Country Physician" by O. Kanner, Macon; "The Effect of the Acute Infectious Disease Upon the Heart" by A. F. White, Flovilla; "X-Ray as an Aid in Diagnosing Gall-Bladder Diseases" by J. A. Fountain, Macon; "Treatment of Nausea and Vomiting of Early Pregnancy" by O. R. Thompson, Macon; "Orlean Cornelius and Her Extraperitoneal Anastomosis" by C. C. Harrold, Macon; "X-Ray Diagnosis of Chest Lesions" by J. J. Clark, Atlanta.

OBITUARY



Dr. Henry H. Malone, 742 Greene Street, Augusta, died at the U. S. Veterans' Hospital, Atlanta, on July 6, 1927, after an illness of about two weeks' duration. He was born in Columbia County, Georgia, in 1863 and graduated from the University of Georgia Medical Department, Augusta, in 1890. Dr. Malone was one of the oldest and most distinguished physicians of Augusta, having practiced there for thirty-five years. He volunteered and served as captain in the medical department of the United States Army during the World War and was honorably discharged in March, 1919. Dr. Malone was a member of the Richmond County Medical Society and the Medical Association of Georgia. He is survived by his widow, two sisters, Mrs. Margaret Batchelor and Miss Annie Malone of Appling. Funeral services were conducted from the Undenominational church by its pastor, Rev. Richard A. Belsham, assisted by Rev. G. M. Eakes, pastor of the St. John's Methodist church. Interment was in Westover cemetery.

CAT. *Dr. William B. Crawford*, Lincolnton, died at his home July 10, 1927. He was born in 1866 and graduated from the University of Louisville School of Medicine, Louisville, Kentucky, in 1892. Dr. Crawford was one of the leading physicians of eastern Georgia and had been an outstanding figure in civic, educational and religious work for almost a generation. He was a member of the Lincolnton Presbyterian church. Funeral services were conducted from the auditorium of the Baptist church by Rev. W. S. Porter.

Dr. E. C. Lassiter, Dawson, died July 10, 1927, at a private sanitarium in Atlanta, where he had been for some time receiving treatment. He was born in 1853 and graduated from the Tulane University of Louisiana School of Medicine, New Orleans. Dr. Lassiter was at one time affiliated with the Johns Hopkins Hospital, Baltimore, Maryland. He is survived by three daughters, Mrs. A. M. Cadenhead, Waycross; Mrs. Charley Johnson, Albany, and Miss Pauline Lassiter, Hatcher. Three sons, H. J. and C. P. Lassiter, Atlanta, and E. C. Lassiter, Jr., Pensacola, Florida.

CAT. *Dr. John W. Hurt*, Atlanta, died suddenly from a heart attack at his home, 119 Sixth Street, N.E., July 19, 1927. He was born in 1860 and graduated from Emory University School of Medicine in 1884 and later took a post-graduate course at The New York Polyclinic Medical School and Hospital, New York City. Dr. Hurt practiced in Atlanta for about thirty-five years, built up a large practice and made scores of friends. He served as physician for Fulton County for ten years and at the time of his death was surgeon for Post B, Traveler's Protective Association. Dr. Hurt was a member of the Masonic lodge and the St. Mark's methodist church. He is survived by his widow and two sisters, Mrs. A. L. Miller, Macon, and Mrs. Frank Akers, Atlanta. Rev. W. L. Duren conducted the funeral services from St. Mark's methodist church and interment was in West View cemetery.

AT. *Dr. James Maddox Strickland*, Austell, died July 18, 1927, at his home after a long illness. He was born in 1866 and graduated from Emory University School of Medicine in 1895. Dr. Strickland was a prominent physician and druggist of Austell. He is survived by his widow; one brother, R. M. Strickland, Tallapoosa; three sisters, Mrs. T. N. Lindley, Powder Springs, Georgia; Mrs. W. B. Westmoreland and Miss Zula Strickland of Austell. Funeral services were conducted from the Austell methodist church by Rev. F. S. Hudson and Rev. J. W. Stevens and interment in Rose Hill Cemetery at Austell.

AT. *Dr. James Calvin Harris* was born in Pike County, Ga., on December 17, 1867. After taking

the usual course in the common county schools of the day he entered Gordon Institute at Barnesville, Ga., where the latter days of his literary training was spent. He then entered Moors Southern Business College in Atlanta, Ga., from which he graduated on February 16, 1892, having been married to Miss Emma Elliott a short time previously. After spending some years in the vocation of school teaching he entered the Atlanta School of Medicine from which he graduated in the spring of 1909 being honored by his class with the position of president of the same.

He then located at Meansville, Ga., for the practice of his profession where he remained until October, 1910, at which time he moved to Collins, Ga., where he did an extensive and successful practice for about twelve years, then in October, 1922, he moved to Reidsville, Ga., where he also did an extensive practice until he was barred from his work by failing health in the early spring of 1926. After a few months of lingering illness at home he sought relief in Atlanta, where he died on June 26, 1927, at the age of 59 years.

At the time of his death Dr. Harris was President of the Tattnall County Medical Society, being the first member of the society to depart this life during his tenure of office.

Dr. Harris was not only honored by his contemporaries with whom he labored in his chosen profession but his life and character was an honor to the profession.

Generous, kindhearted and self-sacrificing almost to a fault, he went about doing good to others day and night through heat and cold, rain and sunshine, seeming never to be too tired or too sleepy to respond to the call for help from his fellow man. In this his life bore a very striking resemblance to that of the Christ in whom he trusted for salvation in so much that it may be truly said that he gave his life for others, many of whom were ungrateful sinners.

J. C. COLLINS.

CAT. *Dr. Charles J. Jenkins* of Edison, Ga. laid down his burdens in the fifty-ninth year of his life on July 24, 1927, and passed to a splendid reward. His desire has always been that he die "in harness" and this wish was fulfilled. Having just returned home from his round of calls, he was stricken and died in a few hours surrounded by his devoted family and friends. He leaves a wife and six children to mourn his passing.

The medical profession of the state can ill afford to give up men of the type of Dr. Jenkins. He was above all things a professional gentleman of the old school; ethical in letter and spirit; in consultations he was wise, safe, open-minded and unselfish; the thought uppermost in his mind was previous day. This was repeated every day for seven days. During all this time there

(Continued on page 297)

Medical Association of Georgia

Next Annual Session, Savannah, Ga., May 9, 10, 11, 1928

President.....	W. A. Mulherin, Augusta
First Vice-President.....	H. M. Fullilove, Athens
Second Vice-President.....	C. Thompson, Millen
Secretary-Treasurer.....	Allen H. Bunce, Atlanta
Parliamentarian.....	M. A. Clark, Macon

DELEGATES TO THE A. M. A.

E. C. Thrash (1926-8).....	Atlanta	C. W. Roberts (1926-8).....	Atlanta
Alternate, J. W. Palmer.....	Ailey	Alternate, B. T. Wise.....	Plains
A. H. Bunce (1927-9).....	Atlanta		
Alternate, Wm. R. Dancy.....	Savannah		

COUNCIL

C. K. Sharp, Chairman.....	Arlington	M. M. Head, Clerk.....	Zebulon
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COUNCILORS

1. Wm. H. Myers (1930).....	Savannah
2. C. K. Sharp (1930).....	Arlington
3. G. Y. Moore (1930).....	Cuthbert
4. O. W. Roberts (1930).....	Carrollton
5. E. C. Thrash (1928).....	Atlanta
6. M. M. Head (1928).....	Zebulon
7. M. M. McCord (1928).....	Rome
8. Steward D. Brown (1928).....	Royston
9. C. L. Ayers (1929).....	Toccoa
10. S. J. Lewis (1929).....	Augusta
11. A. S. M. Coleman (1929).....	Douglas
12. J. Cox Wall (1929).....	Eastman

VICE-COUNCILORS

1. C. Thompson (1930).....	Millen
2. R. F. Wheat (1930).....	Bainbridge
3. Chas. A. Greer (1930).....	Oglethorpe
4. W. H. Clark (1930).....	LaGrange
5. W. A. Selman (1928).....	Atlanta
6. J. M. Anderson (1928).....	Barnesville
7. J. H. Hammond (1928).....	LaFayette
8. B. C. Teasley (1928).....	Hartwell
9. J. K. Burns, Jr., (1929).....	Gainesville
10. H. D. Allen, Jr., (1929).....	Milledgeville
11. K. McCullough (1929).....	Waycross
12. Austin L. Smith (1929).....	Cochran

COMMITTEES

COMMITTEE ON SCIENTIFIC WORK

V. P. Sydenstricker, Chairman (1928).....	Augusta
Frank K. Boland (1928).....	Atlanta
A. H. Bunce, Secretary-Treasurer.....	Atlanta

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Chas. E. Waits, Chairman (1928).....	Atlanta
J. W. Palmer (1929).....	Ailey
A. R. Rozar (1930).....	Macon
W. A. Mulherin, President.....	Augusta
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To visit Alabama: J. M. Anderson, Columbus;
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gusta; C. C. Harrold, Macon.

To visit Tennessee: R. M. Harbin, Rome; S. M.
Howell, Cartersville.

INTESTINAL OBSTRUCTION

(Continued from page 283)

enterostomy as the operation of choice in obstruction. The tube, however, has the advantage in that the intestine may be irrigated through it. Moreover, a small rubber tube inserted into the intestine in high obstruction will prevent irritation and digestion of the skin surrounding the opening.

Dr. Roberts sounded a very good note when he says, "Don't be too quick to operate." We had a very interesting case in the hospital which we observed seven days after an operation of appendectomy for acute appendicitis. On the second day after operation he developed an acute intestinal obstruction and for several hours had symptoms of colicky pains in the abdomen, distention and absence of the passage of any fecal matter or flatus from the rectum although many enemas were given. In about three hours these symptoms disappeared except for the distention and absence of bowel movements. We thought he was all right until the next day at four o'clock when these symptoms started again and lasted several hours and then subsided just as on the previous day. This was repeated every day for seven days. During all this time there was marked abdominal distention and absence of any bowel movement. On three occasions the patient was brought down to the operating room but each time his general condition was so improved that he was sent back to the ward without an operation. On the seventh day after a large dose of peristaltin the obstruction was relieved. This case brought out a very important point. It is only during increased peristalsis of the intestines that toxic substances are absorbed into the blood. This observation stimulated us to an experiment. We took a dog's intestine, made an artificial obstruction and after twenty-four hours cut out the loop, closed the ends and placed it in salt solution contained in a vessel. After several hours a small portion of this salt solution was injected into the vein of a dog without any toxic effect on the dog. After this we injected a large amount of fluid into the lumen of the intestine causing marked increase of the pressure within the loop. Injection of the salt solution then into the dog's vein caused immediately toxic symptoms. This experiment seems to show that increased pressure within the loop of an obstructed intestine promotes the absorption of toxic substances into the blood stream.

Dr. Roberts also mentioned the difficulty in diagnosis of intestinal obstruction. I think everyone will agree with him on this point.

Dr. Howard brought out a point which has some practical value. In acute intestinal ob-

struction there is an increase of the non-protein nitrogen and a decrease of the chlorid content of the blood. Often the nitrogen content serves as an index of the degree of toxicity. One may, therefore, determine his future plan of procedure in a case by knowing the amount of increase of non-protein nitrogen in the blood.

(Continued from page 295)

to be of benefit to the sufferer, keeping *self* constantly in the back-ground. His life was an example to all men in correct living, and especially to physicians.

He had his crosses to bear—we all have them—but do we bear them without murmuring as he did?

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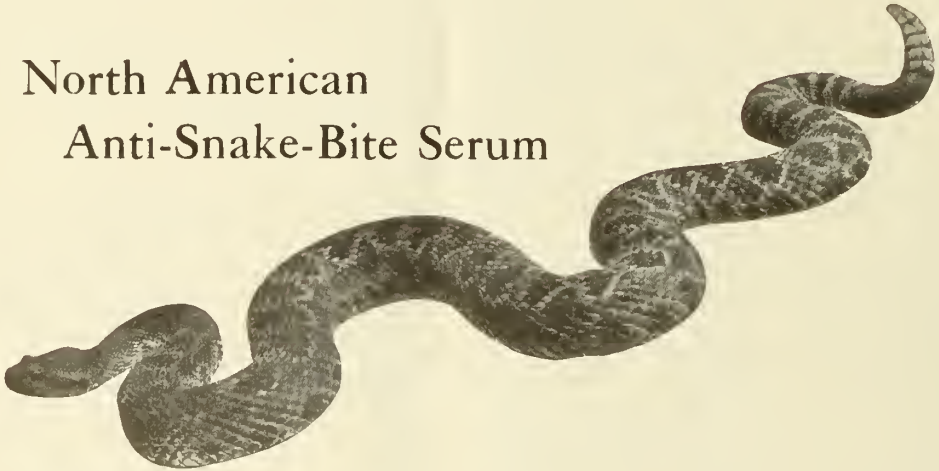
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DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA

PUBLISHED MONTHLY under direction of the Council

Volume XVI

Atlanta, Ga., September, 1927

No. 9

RICKETS*

W. W. ANDERSON, M.D.

Atlanta

Rickets is a complex disease of nutrition, most commonly occurring between the ages of 6 and 18 months. Although the chief lesions are in the bones, all of the organs and tissues of the body are affected. Conservatively speaking, perhaps 50% of all babies at the present time have rickets. In Boston Morse some years ago found that 80% of the babies of the hospital class showed clinical evidence in the bones of this disease. Among the negroes it is so common that were we to make a diagnosis of rickets on every child passing through negro clinics our disease index file would become very cumbersome and would include nearly every child coming to the clinic. During the winter and spring months in cities this can almost be said of white children, perhaps 90% of white children in the hospital and dispensary class showing some evidences of rickets. No locality seems to be immune from the disease. The largest numbers of children affected are in the temperate zones, and of this number again more children living in cities, and especially in crowded tenement districts of cities, are affected. In the torrid zones less clothing is worn, so that children get more sunshine, and in frigid zones diets consist largely of whale fat. In a like manner in the country perhaps breast feeding is more largely practiced (even though it be continued too long at times) and children have more light, sunshine and appear to have more resistance to rickets.

Although the exact etiology is unknown, enough is known of diet, environment, hygiene, etc., to either prevent or cure the con-

dition. First of all it is rare in breast fed children, the largest number of cases occurring in children who are artificially fed, and again in children who are poorly fed, but most of all in children who are raised on proprietary foods, where such foods are low in fats and high in carbohydrates. There are undoubtedly children who have a predisposition to develop rickets even though under the best observation as to diet, hygiene and surroundings. Again, heredity seems to play a part in the production of rickets. One author gives the history of a woman who was married 3 times. By her first and third husbands who had not had rickets she bore children who remained free from the disease; by her second husband, who had suffered from rickets, she bore 5 children, all of whom developed rickets. I have recently seen a child develop rickets while nursing a wet nurse whose own baby had rickets. The patient was the second child. The older child nursed her own mother. From such instances it would seem wise in securing wet nurses, if we consider the question of rickets as well as syphilis, tuberculosis and the other contagious diseases.

Although the disease is far reaching, usually involving the entire system, the only constant and characteristic lesions are found in the bones. Due to the lack of mineral salts, especially calcium phosphate, they are very flexible, so that if forces of various kinds are brought upon them, they may assume bizarre appearances, such as bow legs, deformed chest, kyphosis, scoliosis, etc. Where growth is most rapid, i.e., at the epiphyses of the long bones, the lesions are most advanced. The middle ribs are earliest and chiefly affected, then the other ribs, the lower end of the femur, the lower extremities of the radius and ulnar, and in some cases all the long bones, including the metacarpal and phalanges. Beading of the ribs, the so-called rachitic rosary, is almost

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

invariably the first appreciable sign. These are made up of nodules at the line of junction of the costal cartilages and the ribs. Along with this, due to the unnatural flexibility of the bones, marked thoracic deformity may develop, due to negative pressure within the chest and a sinking in of the ribs. This materially affects the lungs, so that rachitic children are seldom free from upper respiratory infection, and numbers of them die from these causes. There is usually a diminution in the transverse and an increase in the anteroposterior diameter of the chest. Another frequent deformity is the "rachitic girdle" which is a transverse depression about two inches broad, extending from one side of the chest to the other and corresponding in position to the attachment of the diaphragm. As a result of this the liver is usually pushed downward and can be felt on palpation.

The muscular symptoms of rickets are almost as constant and characteristic as those of the bones. The muscles are small, flabby and poorly developed, so that children are unable to sit erect, stand and walk at the usual ages. Sometimes walking is delayed as long as 2 or 3 years, this being one of the commoner symptoms for which parents seek medical advice with rachitic children. Muscular power is so enfeebled at times as to suggest paralysis. Since no lesions of the muscles have been demonstrated, these symptoms are probably due to imperfect nutrition. Pot belly is usually an early symptom, and occurs in a majority of the cases. The deformity is uniform, the abdomen being everywhere tympanitic and may be tense as a drum head. It is due to a loss of tone of the abdominal muscles, and in the muscular walls of the stomach and intestines. It is aggravated by chronic indigestion and excessive intestinal fermentation. The constipation of rickets, an early symptom, depends upon the loss of tone in the muscular walls. It may alternate with diarrhea.

Along with the other delayed development, dentition is late.

Much thought and study have been given recently to preventing rickets. Most of us believe that all babies should receive relatively large doses of cod liver oil, and sun baths.

Formerly it was believed that a few drops of cod liver oil a day would prevent rickets. Martha Elliott (A. M. A., Vol. 85, p. 656) in studying rickets in New Haven found within a few months that from 20 to 30 drops of pure cod liver oil was insufficient to prevent the development of rickets, and that children taking this amount showed regularly X-ray evidences, and later clinical evidences, of rickets. It is necessary to give babies seen before the first month of life one-half teaspoonful pure cod liver oil twice a day. During the second month the dose is gradually increased to 1 teaspoonful twice a day. If at this time the Roentgen ray shows any signs of rickets this dose is again increased to 1½ teaspoonfuls twice a day, or even one dessertspoonful twice a day. The important fact that definite clinical signs of rickets do not appear until after it can be recognized by X-ray cannot be overemphasized when considering the problem of prevention. It is well known that the curative effect of cod liver oil and lights are not marked until from the third to the sixth week of treatment. It may be supposed, therefore, that the preventive effect of these measures will not be well established for at least a month. If 65% of infants with rickets show X-ray evidences before the end of the 4th month, prophylactic treatment should be begun certainly by the end of the first month, if not earlier. It seems evident that larger doses of cod liver oil and longer exposure to sunlight are necessary if rickets is to be prevented entirely.

After the condition has progressed sufficiently to make a clinical diagnosis—and such signs and symptoms as sweating of the head, restlessness at night, craniotabes, delayed dentition and enlarged fontanel should at once make us think of rickets—treatment should be pushed vigorously.

The active symptoms frequently continue only until the end of the first year, rarely longer than the 18th or 20th month, so that the most important period for treatment, therefore, and the one in which it is most effective, is from the 6th to the 18th month. The earlier the treatment is begun the better the results. Since most of these babies have gotten a diet high in carbohydrates and low in fats, it follows that condensed milk, pro-

prietary foods, etc., should be discontinued and a suitable modified cows milk formula substituted, or for very young infants a wet nurse. Since cows milk is high in calcium, supplementary feedings of cows milk may be added to breast feeding. As soon as possible other foods, such as thick gruels, scraped meats, fruit juices, strained vegetable soups should be offered. Most children are 8 to 10 months of age before rickets is recognized, so that the above mentioned foods may be given to them at once unless digestive symptoms are marked. Breast feeding should be gradually reduced, the change to solid foods being made earlier than with normal children. Frequently the milk has to be reduced to 1 pint a day. If butter is well borne, it can be added to the diet in rather large quantities.

In large cities hygiene plays an important part, it frequently being almost impossible to secure the right sort of surroundings for these rachitic children. Apartment house children, children in hotels, but more especially children in crowded tenement districts get sunshine with difficulty. They should be sent to public parks and other open spaces for sunshine and fresh air, they should be toughened up as much as possible by sleeping with windows open, cold sponges, sun baths inside of their rooms with windows and screens open, and if possible, should be sent to the country frequently.

It has been definitely shown that rickets can be cured rapidly with the violet ray. The whole body is exposed to the rays of a mercury quartz lamp every 2 or 3 days, the length and time of exposure varying with the age and condition of the child. Perhaps there is no more encouraging or spectacular treatment in pediatrics than to see rachitic children blossom out. Again the earlier the condition is recognized and the younger the patient is treated, quicker and better are the results. Children are usually exposed first at a distance of about 24 inches for some 6 to 10 minutes, the distance being gradually shortened and the time increased as much as the child's condition will stand. Care must be taken to protect the eyes from the rays of the lamp. Marked improvement usually begins within 4 to 6 weeks and a cure is accomplished within a remarkably short time.

Cod liver oil will cure rickets as well as prevent it. It rapidly brings about a deposition of calcium at the epiphyses, in the shaft of the bones and in fact throughout the whole skeleton. Marked deformities, however, remain.

At first sight it would seem natural that if rickets is caused by a lack of calcium salts in the bones that feeding of calcium by mouth to replace this would suffice. It is practically certain that little, if anything, can be accomplished by this form of medication, calcium either being not absorbed from the intestinal tract during active rickets, or not utilized in some way.

Sun baths, with all the clothing removed, can be tolerated far better than most individuals think. During the winter months sun baths may be taken indoors with the window open. In the warm weather the body should be exposed to direct sunshine out of doors. There are two ways of doing this. First, the head, feet, arms and legs may be toughened up; or, the entire body may be exposed at one time, for short intervals at first, gradually increasing the time of exposure.

DISCUSSION ON PAPER OF DR. ANDERSON

Dr. T. D. Walker, Macon: I want to thank Dr. Anderson for that nice paper. I am going to say this briefly in discussing rickets. Rickets formerly has been a rather uninteresting disease because heretofore we had to wait before we recognized the disease. There are two things which have increased the interest in recent years in a study of rickets, that is an understanding of the vitamins and the development of blood chemistry. We have learned that by giving vitamins or by giving cod liver oil or by heliotherapy or by quartz rays, that we can increase the deposition of calcium in the long bones. By the development of blood chemistry we have been able to examine the blood and find out just the proportion of calcium and phosphorus in the blood and in that way have been able to understand the early development of rickets. The X-ray helps very much in the early diagnosis of rickets, and it is perhaps the earliest way in which we can diagnose it. We should not wait until the symptoms develop as we have seen in these children. These children have grown old and it is since they were born that we have learned more about it.

Just one word about treatment. Treatment should be begun early. Those children that

are not doing well, that do not nurse well, that are not gaining in weight, will, many of them, show rickets if you will X-ray the ends of the long bones. We can discover it in that way long before we have clinical evidence, such as enlarged epiphyses and rachitic rosary. If, before that time, you begin to give cod liver oil and expose them to the quartz light, you will help them a great deal.

Just one thing about giving cod liver oil and quartz light. I find there is quite a difference of opinion as to the amount of cod liver to be given and when it should be given. A half teaspoonful three times a day to a child three months old, is usually sufficient. You can take an X-ray and find that when the blood vessels at the epiphyses of the bone are deep in the marrow you can find a deposition of calcium.

It does not make any difference when that oil is given. Gerstenberg suggests giving it in one dose before breakfast. It does not seem to me a very palatable time to give the oil but he says you can do it. I find a nice way to give it is in the bottle, particularly in young children, ten to fifteen drops in each bottle. Just have the milk warm, put in the oil and shake it up. The majority of the children will take it very satisfactorily. Occasionally you will find a child who will reject the milk. If so, you have to leave it out and give the cod liver oil by the teaspoon.

One word about the quartz light. The object of the quartz light is to produce erythema. The distance Dr. Anderson mentioned, twenty-four inches, is all right. A distance of twenty, twenty-four or thirty inches for two minutes beginning with probably three minutes in the pronate, two minutes anterior and two minutes posterior, will produce erythema. After four or five days when that erythema has disappeared, then another exposure for probably four or five minutes can be made.

Dr. W. A. Mulherin, Augusta: Dr. Anderson has presented a very important paper. It is surprising how far reaching are the effects of rickets. There are certain things we know about rickets and a lot we do not know about it. He has mentioned to you that we do not know the true etiologic cause. We do know it as disturbed metabolism of the calcium salt and phosphorus, but we do not know what is the cause of that disturbance. The important thing in analyzing it is that we know that sunlight is very important. We can expose a child to sunlight uncovering the body and giving sunbaths. Expose the front of the body one minute the first day, turn over and expose the back, the next two minutes, the next three and so on putting a little bonnet on the baby's head. Getting that baby as

brown as a berry we can cure rickets. We know that giving cod liver oil in the winter months will prevent or cure rickets. As Dr. Anderson says it is not the amount of calcium that gets into the body that counts, it is the amount that is retained. The ultra-violet ray holds the calcium in the tissue.

Another thing that should be stressed in Dr. Anderson's paper is the fact that the manifestations of rickets are not entirely in the bones. There is general systemic trouble. There is malnutrition, the blood is thin, the tissues are below par and the child is irritable and nervous. The nervous system shows it. The glands of the body show it with sweating of the head. The child is pot-bellied and the absence of good muscular tone is very marked. It is important to stress also the far-reaching effects of rickets. There is many a child that dies because it is rachitic. It has no resistance. It gets ileocolitis. It is very important to prevent rickets. In the South we have the sunshine. Why not give all our babies sunbaths and give cod liver oil in the winter months.

Another point; there is a close connection between tetany which is also caused by defective metabolism of calcium salts, and rickets. If you see a rachitic child in convulsions you can put it down that in eighty per cent of these children the cause will be tetany. Tetany can be treated with calcium salts injected subcutaneously and feeding calcium chloride preparations. By this means the convulsions will probably stop. If you assume that every rachitic child that has convulsions they are caused by tetany you will be surprised at how brilliant the results will be.

Dr. T. B. Gay, Atlanta: I recently made a study of 3,500 children here in Athens in regard to the incidence of rickets. Of the 3,500; 900 were under school age, that is, five and one-half years or younger. The incidence of rickets was, of course, less in children over two years of age. The highest incidence was between one and two years of age. We found in the children under two that the incidence of rickets in colored children was twice as great as it was in white children. The incidence among the colored children between one and two years of age was fifteen cases out of each one hundred children examined. The incidence among colored children under one year was five cases out of each one hundred children examined. The incidence in white children under one year was 2.5 cases in each one hundred examined.

Dr. W. W. Anderson, Atlanta (closing the discussion): I would just like to leave this thought with you that if you wish to avoid later complications give large doses of cod liver oil and sunbaths to children. I do not

see why cod liver oil should not be continued during the summer. They tolerate it perhaps better by taking large doses in the morning and late afternoon when it is cooler. I think the consensus of opinion is that our children should receive large doses of cod liver oil and sun baths regularly. My rule is that the children can take sun baths when the outdoor temperature is 70 degrees or above. Many of my babies take sunbaths throughout the entire winter.

THE USE OF BANANA DIET IN THE TREATMENT OF CHRONIC INTES-TINAL INDIGESTION IN CHILDREN*

JOSEPH YAMPOLSKY, M.D.
Atlanta

Ripe bananas have been advocated for many years as part of the diet of children. Pearce and Rose state that the banana is a useful fruit in the child's dietary, if eaten raw and fully ripe. Eddy, who investigated the vitamin content of the banana, writes that the banana is twice as rich in vitamin C as has been previously reported; it has a high A vitamin content and a low B vitamin content. He thinks that in conjunction with milk and cereals, it is a valuable food to be used in children's dietary.

I personally became interested in the use of bananas after studying the work of Sydney V. Haas on the use of bananas in celiac disease.

Celiac disease, or chronic intestinal indigestion, is a troublesome disturbance of nutrition in late infancy and early childhood. The disturbance is objectively characterized by the patient's inability to tolerate carbohydrates and fat. Although fats are somewhat better tolerated, the total quantity of carbohydrates tolerated is indeed very small.

The symptomatology of these cases will be described through case reports.

I shall, therefore, outline the treatment which, according to Haas consists of:

1—Keeping the gastro-intestinal tract as free

from toxic accumulation as possible. This is best done by giving the patient one ounce of castor oil, once a week, and daily colonic irrigations with a solution of sodium bicarbonate until the returns are clear.

2—Dietetic—I have found in my cases that protein milk, sweetened with saccharin to begin with, is best tolerated. Since there is a fat disturbance, it is best to use this food to begin with. Along with it may be used pot cheese, prepared from either whole or skimmed milk—white of an egg—broths and gelatine are used at the same time. Later, beef juice and then meats may be tolerated.

Carbohydrates must be strictly avoided and saccharin may be used for sweetening and, for that reason, no starchy foods of any kind must be used.

The one carbohydrate that is tolerated is sucrose, as it occurs in an extremely ripe banana. While an under-ripe banana is starch, an over-ripe banana is sucrose with an invert sugar and is easily tolerated. A ripe banana has a brown skin; a bland, sweet taste and never puckers the mouth. While it is difficult to get the child to take the bananas at first, as soon as one succeeds in getting them to eat them, the successful outcome of the case is assured. The number of bananas taken may be unlimited, as Haas reports a case twenty-four months of age taking sixteen bananas a day.

The caloric value of the diet is usually very high and the treatment sometimes must be continued for a length of two years or more.

In order to illustrate a complete diet, I will report the following three cases:

Case 1—Breast fed child, now on general diet.

Previous history unimportant. For the last eighteen months, constant loss of weight with attacks of diarrhea, vomiting and refusal to take much food. Anything he eats gives him colic; he cries constantly and does not sleep. He suffers from anorexia. Weight twenty-eight pounds, four ounces. Nov. 3, 1925. Examination shows the child very pale, undernourished, nervous, constantly crying, does not care to walk. Abdomen large and protuberant.

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

(From Central Presbyterian Clinic for Children, and Emory University School of Medicine, Department of Pediatrics.)

The patient was put on the following treatment: Castor oil, one ounce every Sunday; daily, colonic irrigations; protein milk, one quart; orange juice; and two bananas. The patient ate very little the first week and weighed twenty-eight pounds and two ounces at the end of this time. At the end of the week, however, he began to take his bananas and in two weeks' time his diet consisted of: eight bananas; two glasses of buttermilk; four glasses of protein milk; whites of two eggs; one soft boiled egg; one ounce of orange juice; prune juice and a small piece of beef.

December 29—Patient weighed thirty-three pounds and six ounces, a gain of five pounds and ten ounces. From then on the patient has done well—he now weighs almost forty pounds, is in perfect health, the abdomen is flattened out and although he has been through severe acute illnesses, he has had no more disturbances of digestion.

Case 2—M. E. T. Female, eight months of age; weight, fourteen pounds. Breast fed for six months and since then the patient was on all kinds of food. Patient is not able to sit up; abdomen very protuberant; gums spongy; marked paleness and signs of rickets present. Patient very restless and has constant diarrhea. The patient when seen was put on protein milk and bananas and the other regime, as described before. The patient is now fifteen months of age; weighs twenty-four pounds; attempts to walk; paleness disappeared and takes the regular diet of a child this age.

Case 3—B. W. K. Male; fifteen months of age; weighs fourteen pounds; looks desperately ill; cannot sit up; gives a history of several months' duration of vomiting, constipation alternating with diarrhea, has signs of rickets and has a marked abdominal protuberance. The patient is very much undernourished and is crying all the time. Has been fed on every known food and is constantly losing weight and refuses to take nourishment.

The first two weeks the patient lost one pound and three weeks later the patient began to eat bananas. The patient slowly

began gaining in weight and general health. At the first visits the child had a marked anemia, and at twenty months, the patient's weight is twenty pounds; he can now sit up and attempts to stand up; rickets materially improved; blood picture normal and up to date is gaining and doing fine.

The above three cases illustrate some difficult problems one has to face in treating children suffering from celiac disease. Carbohydrates are not tolerated under any circumstances, except in the form of bananas. Ordinary milk, due to its fat content is not taken and protein or lactic acid milk will be tolerated. Protein in any form seems to be the most easily assimilated food taken.

The diet then may be outlined as follows:

- 1—High caloric value.
- 2—Ripe banana (any number).
- 3—Protein or lactic acid milk.
- 4—Beef juice.
- 5—White of an egg.

As the patient progresses, meats, then buttermilk, milk and finally starches in the form of sugars and vegetables are to be added last.

SUMMARY

Bananas, when ripe, are very digestible. They were used in conjunction with protein milk and a regular course of intestinal elimination in three cases of severe celiac disease. The patients gained in weight and after two years of observation, are apparently well.

REFERENCE

- 1—The Value of Bananas in the Treatment of Celiac Disease—Sydney V. Haas—*American Journal of Diseases of Children*. Volume 28; No. 4; pages 421-437. 1924.
- 2—The Banana as Food for Children—Marshall C. Pearce and A. R. Rose—*American Journal of Diseases of Children*. November, 1917.

DISCUSSION ON PAPER OF DR. YAMPOLSKY

Dr. W. N. Adkins, Atlanta: Dr. Yampolsky has presented a very interesting and instructive subject. The etiology of Celiac disease as yet remains a mystery, but the banana diet has proved to be quite an addition to our armamentarium in treating this peculiar

condition, which must be primarily due to a disturbance in metabolism. This is manifested chiefly in the patient's inability to handle fats and carbohydrates. It is similar in this way to rickets in which there is a disturbance in the calcium and phosphorus metabolism. As has been brought out, the value of the over-ripe banana in Celiac disease is due to the fact that in this type of banana the carbohydrate content is in the form of sucrose and is apparently the only form these patients are able to metabolize. In addition to such diet good results are often obtained by the addition of the ultra violet rays, either in the form of natural sunlight, but preferably by use of the mercury vapor quartz lamp. Such benefit is probably due to the fact that these cases are primarily rachitic.

Dr. R. C. Maddox, Rome: I have not had a great deal of experience in feeding children bananas for any kind of complaint. It strikes me though that these cases of intestinal indigestion as described by Dr. Yampolsky, are sometimes the most trying cases that pediatricians have to deal with. Frankly, I have only tried bananas in one or two cases and I cannot say that my results were brilliant. It strikes me that protein feeding is the best method with the addition of anti-rachitic measures, sunbaths and ultra-violet ray. Usually cod liver oil is not well tolerated.

In the last few years there has been quite an effort on the part of the United Fruit Company to interest physicians in the feeding of bananas to children. Anything that savors of commercialism in the medical profession, I am rather skeptical of. I recall one child who swallowed a penny. The mother rushed to the telephone and called me. I was not in so she located another surgeon who laughingly said, "Give her a banana." She fed her four and it took me three days to get the child over the effects of the bananas. Since that time I have been just a little more skeptical of bananas. Recently I gave bananas to three children. It is too soon to draw any conclusions. I am watching them with a great deal of interest. Dr. Yampolsky's paper struck me as being very opportune for my purpose. If bananas will add anything to our treatment of chronic intestinal disturbances in children, then I think we should thank Dr. Yampolsky very much for bringing it to us today.

Dr. Linton Gerdine, Athens: I do not know that I can say anything about bananas as treatment. I think all of us have an idea that bananas are very indigestible. I think they are and usually because we eat them in the green state when not sufficiently ripe. The fact that children can eat bananas is very well demonstrated to any one who has been

in the tropical countries where bananas grow. You can see little children from the time they begin to walk, or younger eating bananas. I do not know that it will correct pot-belly because I never saw children more pot-bellied than in the tropics. They speak of it as "banana-belly." At any rate they grow and thrive and eat bananas. If he is finding that bananas are going to be of any help in conditions such as Dr. Yampolsky has told us about, I do not think we should be afraid of feeding bananas because I do not think they will hurt the child. They certainly eat them where they are native.

Dr. W. A. Mulherin, Augusta: I have no bananas today but Dr. Yampolsky must have plenty over in Atlanta.

It has been the prevailing idea that bananas are very indigestible. We pediatricians believed that up to the time Hess of New York had an Italian baby who would not eat anything. He asked the mother if there was anything the baby liked. She said, "Yes, Doctor, it likes bananas." He said, "Give it a little bit and see if it agrees with him." The child took the bananas and began to improve. I think Hess tried it in six or ten cases before he finally decided that bananas were good for this particular type of case.

It might be well to mention that in chronic intestinal indigestion or coeliac disease there is an intolerance to carbohydrates. That gives you the keynote to the whole situation. These children can not tolerate carbohydrates but can digest bananas.

Another point, we usually find it between two and five years of age. After five it is much more easily handled. Another valuable point in connection with it is to tell the mother when she brings the baby to you that the child has coeliac disease and it will take from one to three years to bring it back to a normal diet. It is going to be six months before you can give that child any carbohydrate and you have to give it very slowly, otherwise the child gets upset. Bananas I find very successful in the treatment of these cases. I recall two cases in which I had to omit bananas as I felt they were not agreeing with these children. The majority can take bananas. They will help very materially in the treatment of chronic intestinal indigestion.

Dr. H. P. Harrell, Augusta: I would like to say a word about the treatment of these cases of coeliac disease, having had the opportunity to see a good many cases in the University Hospital at Augusta. We found a good many did not pick up as rapidly as the ones reported. We resorted to blood transfusion. Most of these cases have a pronounced secondary anemia which is very evident. Under blood transfusion the child picks up and

seems to gain in weight. Some of these cases remain stationary for quite a while but after two or three transfusions they seem to pick up more rapidly. The blood transfusion can be given intravenously or intraperitoneally. Personally I rather favor the intravenous method.

Dr. Joseph Yampolsky, Atlanta (closing the discussion): In answer to Dr. Adkins, I wish to say that these were not the only three cases treated in Atlanta. I merely felt that this was no place to burden people with case records so I simply showed three cases.

In answer to Dr. Maddox he certainly knows that I have no interest in any trust or the United Fruit Company. However, if they are going to take the opportunity of testing something to be tried out medically that is their good fortune. The green bananas are not well tolerated. If the banana is very ripe with black spots then it is proper to use and if you find that the black spots are not due to injury in carrying, you will find these are good.

We must have at our disposal different means of treating chronic intestinal indigestion. Perhaps some of you do not recognize that. If you do find some cases that do well on bananas and no other form of carbohydrates, it is your duty to try them out. I hope some time later we will find reports of patients who are taking carbohydrates in that form. When I started giving bananas, I merely watched their bellies going down and their weight coming up.

STARVATION DIET VERSUS FEEDING IN THE TREATMENT OF SUMMER DIARRHOEAS*

W. A. MULHERIN, M.D., A.M., F.A.C.P.

Augusta

The term "summer diarrhoea" is used synonymously with that of ileocolitis or infectious diarrhoea. There have been three notable advancements in the practice of pediatrics within the last five years. They are: 1. The more generous and sensible feeding of infants during the first year of life. 2. The feeding of artificially fed infants, ill with ileocolitis, with boiled cow's milk and case, toast, saltine crackers, oysterettes, or Uneda Biscuits; instead of giving starvation diet to these little patients, such as beef tea, chicken soup, bar-

ley water, rice water, white of egg, panopeptone, and Hart's Elixir. 3. The giving of water more generously to ill babies, even forcing it if necessary, thereby avoiding many of the metabolic disturbances, chiefly acidosis or alkalosis.

What I have to say does not apply to acute intestinal indigestion. In such cases starvation diet is an ideal treatment, for the average duration of illness in such cases is some two or three days. Starvation diet becomes an entirely different proposition when applied to cases of acute ileocolitis, with an expectant duration of some one to four weeks, and occasionally lasting a longer time.

A study of the medical literature reveals the fact that the feeding of babies, ill with summer diarrhoea, has been developed along two distinct lines—very much the same as has been the case in the feeding of typhoid fever patients. The old line of thought—unfortunately too much in vogue today—led to about the following conclusions: A baby ill with summer diarrhoea has its digestion reduced practically to nil, therefore if it is given a sustaining diet, like cow's milk, toast, unsweetened crackers, such food could not be digested and therefore would aggravate the already existing trouble, and work to the detriment of the patient. In keeping with this belief, barley water, beef broth, etc., as enumerated above, were given to the patient. As a result the baby, instead of being physically supported, as common sense would dictate, would grow weaker and weaker day by day, until out of sheer weakness it would develop broncho-pneumonia and die from the pneumonia and not from the original bowel trouble. This line of treatment has cost many a baby its life, and today is still exacting a very heavy toll in pediatric practice.

The new line of thought is based on what I would call more common sense and saner medical reasoning. A baby ill with ileocolitis (summer diarrhoea) needs supportive treatment. The infection, the frequent stools, tenesmus, vomiting, pains, fever, are all lowering the baby's vital force and calling on its reserve strength. As the infection is scattered throughout the glands and tissues of the intestines, no amount of purgation can possibly dislodge it; likewise intestinal anti-

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

septics, bismuth, etc., cannot possibly permeate the tissues and glands, therefore is productive of no special good. On the contrary, it is believed that the administration of such medication does a great deal of actual harm, by provoking vomiting and lessening appetite.

By a normal process of reasoning the following deductions appear to be logical. As we have no specific remedy in the treatment of ileocolitis, the chief purpose of treatment should be to sustain patient's strength, give plenty of water, and treat symptomatically until the disease has run its course. The identical treatment as is practiced in the treatment of typhoid fever.

The most sustaining, and at the same time one of the most easily digested of all foods, is cow's milk. Holt's text book, and some of the other leading text books on pediatrics, strongly condemn the use of cow's milk in the treatment of ileocolitis. They advise a return to cow's milk only after the baby is practically well, and then state it must be added very cautiously. I do not subscribe to, nor do I follow in my practice, such ideas. I did at one time and the mortality with my little patients was then fully 50% higher than it is today when I use a more sustaining diet. Rarely have I found a baby with a proteolytic flora of the bowels of such extent that it forced a carbohydrate diet, such as condensed milk, and barley water. I can see no harm in clean, fresh, boiled cow's milk, and believe it does no harm, in cases of ileocolitis, but on the contrary is one of the most important contributing factors in getting these little patients well. I have, however, seen questionable cow's milk do a great deal of harm.

If while supporting the baby's strength with cow's milk there can be added to the milk a constipating food, it would appear to be a very advantageous procedure. This is easily accomplished by adding casec powder (a dry constipating milk powder) 4 to 8 level tablespoonfuls to the quantity of milk to be given to the baby in 24 hours. This powder, consisting of calcium caseinate, combines with the fats of the cow's milk, forming soapy stools, and soapy stools constipate. Thus we secure a medicinal as well as a nutritional effect from casec powder. Casec powder is

practically the same, in composition and effect, as Finkelstein's old formula for making protein milk, and does not lose any of its properties, nutritional or medicinal, by being used in its powdered form.

The process of adding casec to sweet milk or to buttermilk, is very simple. If it is to be added to sweet milk, 4 to 8 level tablespoonfuls are dissolved in 4 to 8 tablespoonfuls of water; then the casec water is to be added to the amount of sweet milk the baby is to take in 24 hours, and boiled for one minute. If the casec is to be added to buttermilk or lactic acid milk with Karo syrup, the Karo syrup is left out of formula and in its stead casec, in the same amount as above mentioned, is dissolved in cool water and is then added to the buttermilk or lactic acid milk, without boiling the mixture.

As toast, saltine crackers, oysterettes, Zwieback, Uneeda Biscuits, are practically composed of the same food as barley flour, this food can be added to the diet of an infant, who has already been accustomed to taking such food, during the acute stage of ileocolitis. It is much more sensible, and likewise more sustaining of strength to give such concentrated food as toast and crackers, than the weak insipid-tasting barley water with its low calorie value.

A word about the importance of free ingestion of water during the various illnesses of babies. Two-thirds of a baby's body is composed of water, therefore water must be a very important component of the body. When fever, pain, diarrhoea, vomiting, occur as symptoms in the course of ileocolitis, or in any other acute illness of infancy, they necessarily make a heavy drain on the water supply of the body. If water is not supplied to the tissues, in such cases, in sufficient quantity to replace this drainage, normal metabolism becomes disturbed, and such symptoms as vomiting, stupor, marked nervousness, toxæmia, high fever, convulsions, due to disturbed metabolism, frequently ensue. If the cause for these symptoms is not quickly recognized and appropriate treatment quickly instituted, only too frequently the case ends fatally. When such cases come to the autopsy table, they will not show enough gross pathology to account for death. The cause of

death, therefore, must have been due to dysfunction of the vital organs, which eventually disturbed the normal mechanism of the body, to the extent of producing death. In keeping with this line of thought, a generous supply of water to the tissues would seem to be an essential factor in preventing toxæmia, in cases of ileocolitis. Also it would appear, that the logical treatment of severe toxæmic cases of ileocolitis would be about as follows: Give water plentifully by mouth, orange juice one tablespoonful every four hours, to prevent, or to treat an already existing, acidosis. Give saline solution, 200 to 400 cc. intraperitoneally once or twice daily, or every eight hours. Give subcutaneously 50 cc. of 20% glucose solution every four hours, or glucose solution intraperitoneally when severe vomiting precludes the giving of water or food by mouth, is at times lifesaving. This glucose solution seems to serve as fuel for the liver and body tissues and keeps the mechanism of the body functioning until something more substantial can be done for the patient.

To summarize, the modern idea in the treatment of ileocolitis is the same in principle as the treatment of typhoid fever—support the baby's vital force with food of sufficient strength to be of some real value, until the infection has run its course. Treat symptoms as they arise, giving medicine only if there be a direct indication for it. Give plenty of water to drink; if necessary, force it, or give it artificially, in order to keep the tissues and organs of the body functioning in a normal manner, thereby preventing metabolic disturbances that frequently claim the life of the little patient.

DISCUSSION ON PAPER OF DR. MULHERIN

Dr. R. L. Miller, Waynesboro: Dr. Mulherin's paper is most interesting and timely. He is to be congratulated on the stand that he has taken in advance of many men in that he has been a firm advocate for many years, of feeding children with summer diarrhea.

The normal child requires about fifty calories per pound of body weight per day. And this must consist of the essential food elements, protein, carbohydrates, mineral salts and vitamins. Certainly a child that has not only to sustain its vitality but in addition has to cope with a disease can not hope to

get well when put on a starvation diet.

I think that many doctors fail to realize that whenever they reduce a child's food below the necessary number of calories or fail to supply the essential food elements they do so at the expense of the body weight of the child to say nothing of its chance to cope with the ravages of a disease. It is as Dr. Mulherin says, just as reasonable to starve a typhoid patient as to feed these children on the innumerable concoctions recommended as suitable foods for a child with summer diarrhea that aside from the water they contain are absolutely worthless.

I know of nothing that so promptly relieves the vomiting in these cases as glucose. The doctor stated it mildly when he said that it is "often life-saving." Its influence on the glycogenic function of the liver is wonderful. In this connection let me say to you general practitioners try glucose on the next obstinate case of nausea of pregnancy that you have.

In the preparation of protein milk I differ just a little from Dr. Mulherin. I dissolve the casein in the amount of water that I intend using and bring this to the boiling point and add my milk and boil for two full minutes. This may not be necessary but I believe that two minutes are better than one.

The only trouble that I have ever encountered in this method of feeding these patients has been that it is some times hard to get the mother to make the child take the necessary amount of food. And unless this is done you will not have the results that you are expecting. But if you persevere in the method as outlined by Dr. Mulherin, you will be amply repaid for all of your trouble.

Dr. A. J. Mooney, Statesboro: The pediatricians of Georgia have placed the future citizens of this state under great obligations to them in the wonderful progress they have made in handling a condition which has heretofore been fraught with great mortality. The men whose heads are streaked with gray and who have been practicing twenty-five years or more can recall that when a child had a diarrhea that lasted more than forty-eight hours, they were up against a proposition that was going to last three, four or five weeks and in a large percentage of cases the children died. That was because the pathology at that time was not understood. I think a great step has been made in using synonymous terms for ileocolitis and infectious diarrhea. That means more than ileocolitis if you reason it out. Furthermore, we know by experience and it has been proven in laboratories that we can feed guinea-pigs and rabbits nothing but animal broths and they will finally starve to death. If that is true among laboratory

animals, how true it is that we have been gradually in the past starving babies when we should have been feeding them. I know you older men can remember that when a baby ran the gamut of a course of ileocolitis, you would get a long train of symptoms, inanition, diarrhea finally convulsions, meningismus and occasionally they would go so far as to develop hypopyon before they died. I have seen the anterior chamber of the eye fill up with pus. Sustaining the body fluids is the keynote in my opinion to the great success the pediatricians are meeting with at this time. I do not treat as many babies as I used to, but I have learned from attending meetings and reading the papers that plenty of liquids will do away with dehydration and the drying-out process which is so detrimental and which eventually kills.

I am also thinking of a surgical principle which could be applied to this infectious diarrhea. I was talking to a surgical friend yesterday about a case of traumatic sympathetic ophthalmia where it looked as though the eye would have to be removed as a life-saving proposition. It was an infection. They removed 15 cc. of blood, agitated it a little, then let it settle and then injected 5 cc. of the serum. The patient experienced relief in less than eighteen hours. Six injections of the whole blood were used after that. The patient made an absolutely complete recovery with no trace of the eye trouble.

Dr. Benjamin Bashinski, Macon: I certainly enjoyed Dr. Mulherin's paper and also the discussion but I have not heard any of them say anything about alkalization of the ileocolitis cases which I think all of us agree is quite important. Practically all of them will get a secondary acidosis which is evidenced by vomiting and, of course, by thirst. Of course thirst is very acceptable because we want them to take water. I think we should make it a rule in the beginning of a colitis to give alkalies. By giving sodium citrate in the beginning we will prevent secondary acidosis plus the giving of sufficient water. In a number of these cases it is almost impossible to get them to drink water. All of the discussions agreed that we should instruct the mother to force water. It is much better to give it by the needle either intraperitoneally or by hypodermoclysis. The quickest way is intraperitoneal injection. Another point that seems to work very well is saline irrigations often combined with soda. The saline and soda irrigations seem to work very nicely. By giving such irrigations we make them more comfortable and make the number of bowel movements less frequent. Dextrose and glucose are very good. Last summer Dr. Funk-

houser gave us a very good method of giving dextrose by means of a preparation of dextrin compound. Little children will take that because they like the taste. It tastes like candy. All through the discussion was the question of water. Water is primarily the most important proposition we have to deal with in ileocolitis. It is in many cases a physical impossibility to get them to drink water and it is necessary to use normal saline.

It was brought out that intraperitoneal injections of glucose may cause general peritonitis and that it is not altogether safe to use glucose in the peritoneal cavity. I am sure I get better results by giving ordinary salt solution intraperitoneally than I did by giving glucose.

Dr. R. C. Maddox, Rome: I would like to thank Dr. Mulherin for bringing this to our attention. It strikes me that we are rapidly reaching the conclusion and have reached it probably for some time past, that the treatment of colitis and infectious diarrhea is symptomatic treatment, not specific. Probably the greatest handicap for these children is dehydration. Dehydration and starvation have been the great enemy of these children from time immemorial. It is only in the last year or more that we have made any progress in these cases. That has been due to the intraperitoneal use of fluids, preferably normal saline.

There is one therapeutic measure that I would like to mention—however, Dr. Mooney was getting mighty close to it—that is, the intraperitoneal transfusion of citrated blood. It is a measure that acts not only as fluid but as food. It also has a protein reaction which reacts to the benefit of the patient similar to Dr. Mooney's lacto-albuminose. I have used this method of treatment in some four or five little patients in which I frankly thought it was absolutely useless to do anything at all. Three of those patients got well and two died, which I feel is a very fine mortality rate when compared to that previously obtained by means of intraperitoneal injections of glucose and otherwise. I practice intraperitoneal transfusion for several reasons; first, the reaction accompanying intraperitoneal transfusion is not so severe as that accompanying intravenous transfusion. The blood should be properly typed or grouped which can be done. Often it is very difficult to obtain proper blood. In that case we can use any blood citrated in the peritoneal cavity without any fear of any serious reaction. I would suggest the intraperitoneal route in all cases. I do not believe we should wait until they are dead before we give it. That has been my failing. I have waited, put it off until the last min-

ute. This spring as we are getting into the colitis season I expect to use it early and often.

Dr. T. D. Walker, Macon: I have nothing further to add. Being one of those men interested in children and treating children, I want to say a word supporting Dr. Mulherin and that is that these children should be fed. None of us now doubt the wisdom of feeding our typhoid patients. We can look back on typhoid fever in former years and we know the nervous phase the patients took, how they suffered from causalgia, picking at the bed clothes and so on. Many of those symptoms were due to starvation and acidosis. The acidosis was due to the starvation or the starvation added to the acidosis and the breaking down of the body fat, the liberation of the fatty acids and that added to the seriousness of the condition. Now exactly that same thing happens with children when we fail to feed them.

Fluids are another important factor. They should not be allowed to become dehydrated. If you will feed your patients and give them water, at least two ounces of water per pound per day, the majority of patients will get well.

We should speak of it as an infectious diarrhea or an infection of the bowel just as we speak of typhoid because there is an infection in the bowel and that has to go through the inflammatory process and the stage of healing which takes two to three weeks and the patient needs food to sustain him.

Just as Dr. Mulherin uses casein and cow's milk, I think it is immaterial what food you use but it is essential to use protein food. If you use too much carbohydrate the great danger is that the carbohydrate will produce fermentation and then you have an acidity of the bowel and that acidity irritating the mucous membrane will increase the diarrhea and in turn is registering more harm on the child and is apt to dehydrate the patient more. Sometimes buttermilk will produce fermentation. That is probably due to the whey containing sugar. If the whey is removed, boiling the casein and adding it to the buttermilk makes an excellent feeding for children. If you do that you will cure them just like the pediatricians do who tell you to feed the patients more liberally and give plenty of water.

Dr. W. A. Mulherin, Augusta, (closing the discussion): I wish to thank the discussors for their kind discussion of my paper. The purpose of it was to bring out a generous discussion such as we have had.

I did stress the importance of feeding these patients with ileocolitis. Some of the finer

points have been taken up in the discussion which are good suggestions, for instance, rectal irrigations by Dr. Bashinski, but the time is short and we want to drive home the big points. I like rectal irrigations once a day. It keeps down the toxemia and helps to prevent straining.

About the toxemia Dr. Miller mentioned, it is surprising what glucose will do. Naturally we would expect that. If there is a toxemia disturbing metabolism, we need to keep the tissues functioning and glucose will do that when nothing else will. We have the little ones coming in vomiting and we just give them 50 cc. of a twenty per cent glucose subcutaneously and 200 to 300 cc. saline solution intraperitoneally and it is surprising how we stop that vomiting. It is due to the disturbed metabolism Dr. Miller has very rightly called attention to.

About the preparation of casein milk. The manufacturers at one time advised the boiling of the casein but recently they have sterilized the casein preparation and therefore I think it might be well to dissolve it in water, then stir it into the milk and then boil. It does not make any difference. It makes it a little simpler.

About taste, I have not had much trouble. That is the great advantage of using casein. If you have made use of the original formula of Finklestein's milk, you will see the advantage. It was very unpalatable. If they do not take the casein milk I tell the mother "just now Mrs. A. the important thing in the treatment of this child is to nourish it. If you can not nourish it, I would advise you to go to the Children's Hospital where a nurse will give the milk for you." She goes to the hospital and the nurse makes the child take the milk and that provokes the mother. She goes home and feeds the baby. I do not prescribe that but it is something we have been through.

Dr. Mooney very rightly calls attention to the term that we use at the University of Georgia. We use the terms infectious diarrhea and non-infectious diarrhea.

Alkalinization in acidosis is used quite extensively by some men. Personally I do not bother much with soda by mouth. I follow Talbot's idea. He gives glucose and orange juice by mouth. I gave intravenously salt solution and better, as suggested by Dr. Maddox, blood transfusion and we get out of it very nicely. We prevent acidosis by forcing the water. If the organs do not function properly these poisons develop and the acidosis is produced. If we can keep these organs in nearly normal condition, we will not get acidosis.

Giving glucose solution intraperitoneally

and getting an aseptic peritonitis is very common. That is why we do not use it. We give our glueose solution subcutaneously and the salt solution intraperitoneally.

ZINC STEARATE POISONING*

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Atlanta

Zinc stearate poisoning is a condition found more frequently in children between the ages of 6 months and 2 years, caused by the insufflation of the powder directly from the open can. It is a condition that only in the last few years has been considered of reportable value. Modern text-books^{1 2 3} devote but little space to the subject and periodicals have published only a limited number of articles.

The first cases reported were by Heiman and Aschner⁴ in 1922. This included one fatality in 12 cases, and also animal experimentation. Other fatalities have been reported by Edmond,⁵ Turrell,⁶ Schläpfer⁷ and others. In the animal experimental work, zinc stearate was insufflated into the tracheas of dogs, under anaesthesia. This was done with a small bulb, which was squeezed four or five times. The findings were similar to the accident cases in babies, more pathologically than clinically.

Zinc stearate powder is a combination of zinc acetate and castile soap; the latter acting as a base. The powder is soft, fluffy and very tenacious, slightly antiseptic and a rather strong astringent. In poisoning, its action may be either as a local irritant, or systemic. Cronin⁸ has compared this condition with brass founders' chill, a form of zinc poisoning from inhaling the fumes, which may be caused by a short exposure. The chill follows after several hours, causing a temperature, dyspnoea and bronchial irritation. In infants, the irritation is more marked, owing to the great delicacy of the mucous membranes and is even more pronounced by the small size of the lumen of the respiratory passages, so that a slight amount of swelling may cause considerable respiratory difficulty.

In the animal experimentation, Heiman and

Aschner⁴ injected zinc stearate in the tracheas of dogs. These animals appeared ill for a few days with loss of appetite, a temperature of 101-103°. Some developed a brassy cough, difficulty in breathing was only of a short duration. Three dogs were killed three days after insufflation, two after five days, and one after ten days.

The microscopic sections showed congestion and increase of interstitial tissue, especially in the vicinity of the bronchioles. The bronchioles showed epithelial proliferation. Others showed areas of intense congestion and hemorrhage in addition to interstitial pneumonitis and peribronchitis. This in a lesser degree is similar to the findings of Schläpfer⁷ on the fatal case of a 7½ months old infant. The lungs were voluminous with pale gray areas of emphysema, separated by deep red areas of atelectasis. The bronchioles were congested with plugs of zinc stearate and mucus. Histologically, there was the presence of extensive edema, the lining epithelium of the bronchioles seemed definitely thicker and proliferated. Many alveoli, especially in the atelectatic area, contained an exudate, either precipitated serum, or a similar material, in which red blood corpuscles, desquamated alveolar lining cells and mononuclear cells were imbedded. The alveolar walls showed an increased size and tortuous capillaries.

Only a few cases have been reported with the X-ray findings. Middleton⁹ described two distinguishing types. In the first, changes are seen at the hilum of the lung, which extend uniformly in the shape of a network over both lungs, and gives them a uniform marbled appearance. The second form, the so-called nodular type, is characterized by large, intense, sharp and jagged shadows, and by small disseminated spots on both sides.

One similarity in practically all cases, is the manner of the beginning of the onset. The baby is playing on the bed, or the floor, and is given the powder can to play with. On account of the powder being very porous and fluffy, it is necessary to have large perforations in the top. The baby attempts to put the open top in the mouth and receives a shower of powder in the mouth and nose. Sneezing and coughing is followed by crying,

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

all of which tends to aspirate the substance deeper into the trachea and lungs. From this point, the onset may be one of three types.¹⁰

Fulminating,¹ which has a sudden and stormy onset with rapid respirations. Complete asphyxia may occur, and the patient may die within 24 hours. One case has been reported of an infant, age 3 months, dying within one hour of the inhalation. I have had a case in private practice that had a temperature of 102.8° F by axilla and respirations of 80 per minute in less than 30 minutes of inhalation.

In the second group, an acute broncho pneumonia may develop, with the characteristic signs and symptoms, and a duration of 2 or 3 weeks; the temperature varying from 99° to 105° F. The recovery is usually by lysis.

The third group has a brief course; after the initial suffocative symptoms, the baby recovers gradually without definite involvement of the lungs. In this group, the temperature may only be slightly elevated, and the symptoms may last only 3 days.

The diagnosis depends primarily upon the history. If there is the usual story of the baby having had the powder can for a toy, with subsequent coughing, sneezing and presence of powder on the face and in the mouth, the diagnosis is evident. However, if there is super and infrasternal retraction with aphonia and a brassy cough, it is extremely difficult to differentiate from laryngeal diphtheria. I have seen one such case, and all preparations for laryngeal intubation were made, until later on, the mother remembered that the 18 months' old child had been playing with the open powder can. Some of the cases appear to be a typical broncho-pneumonia, which may be a complication.

The prognosis must be guarded, as one infant died in less than one hour, and as the Committee on Accidents from Zinc Stearate Dusting Powders¹¹ had reports on 131 cases of poisoning, 28 or 21% of which terminated fatally. The committee was of the opinion that the number of cases and, especially deaths, would have been higher if the correct diagnosis had been made.

The treatment is divided more or less into

two classifications. The first is to clean out the mouth and nose, as well as possible, and then, gastric lavage and catharsis.

While the consensus of opinion is divided as to the danger of zinc stearate as to systemic poisoning, the complete removal from the gastro-intestinal tract will offset the complication of a gastro-enteritis. The dyspnoea can be alleviated by atropine and adrenalin, lessening the congestion of the mucosa. Ipecac and potassium iodide are of great value, either as an emetic, a substitute for the lavage, or as an expectorant. The irritation can be eased by benzoin inhalations.

If the patient does, or does not develop pneumonia, all the care, measures and attention of a typical broncho-pneumonia, from the onset of the condition will be well worth while. Theoretically, as fatty acid is a component of zinc stearate, and ether is a solvent of fatty acid, deep ether anaesthesia should be of value. McGuigan¹² of the Department of Pharmacology and Therapeutics of the University of Illinois, attempted this experiment on rats, rabbits and dogs, following the insufflation of zinc stearate by ether anaesthesia. In no instance was ether successful in relieving marked respiratory embarrassment, but in some did relieve the irritation.

As to the value therapeutically, zinc stearate is very mildly antiseptic, but is a rather strong astringent and irritant, which has been verified by Heiman and Aschner⁴ in their animal experiments. Using ordinary talcum powder as a control, for zinc stearate, the symptoms were of the same nature, but of lesser degree with talcum.

The Committee on Accidents from Zinc Stearate Dusting Powders sent letters to fifty well known pediatricists, asking the value of zinc stearate dusting powders. Of the 33 answers, 30 said that it was not of value and its use should be discouraged, two were doubtful and one stated that he would loathe to give it up.

The committee has recommended: first, that all manufacturers of zinc stearate powders for infants be requested to use a self-closing container, and to place a uniform caution label on the container. Second, that its use as a dusting powder for infants be discouraged by the medical profession, because of

lack of therapeutic evidence of its value.

SUMMARY

Zinc stearate dusting powder has been used extensively as a substitute for talcum powder, although it has no advantage therapeutically, and is more dangerous. The inhalation by infants has resulted in twenty-eight deaths, (21%) in 131 cases reported. One three months' old infant died within one hour. Its use should be discouraged, and mothers should be warned of its dangers by the medical profession.

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- (10) Special Article, *J. A. M. A.*, Sept. 12, 1925.
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- (12) Special Article, *J. A. M. A.*, July 3, 1926.

DISCUSSION ON PAPER OF DR. GOLDSMITH

Dr. Linton Gerdine, Athens: This paper has demonstrated I think very clearly that we have been using or allowing our parents to use a poisonous substance on our babies as demonstrated by these reported deaths. It is also mechanically dangerous. There is only one conclusion to draw from that, namely, that unless it has some very great value we should certainly discourage its use. In the one patient I saw with this condition the child inhaled some zinc stearate and developed a bronchopneumonia on the second day which cleared up with no difficulty but within six months it had another attack from which it died. Whether there was any connection, I do not know but at least it is suggestive that the danger is not all over if the child recovers at first. I think we have in this substance a similar condition to lye, on which we worked so long. Printing the directions and making it impossible for the child to come in contact with the substance is the way to deal with zinc stearate powder.

Dr. Benjamin Bashinski, Macon: I enjoyed Dr. Goldsmith's paper very much. I am sure all of you did. I am glad to say that I have had only two cases of zinc stearate poisoning in my own practice. One died and one recovered. I feel it is just as important to discourage the use of zinc stearate as it is for us to encourage the prevention of diphtheria and typhoid fever. The Committee has advocated the refusal of the manufacturers to put

zinc stearate up in a container that is not safe. The Committee has further recommended that they put on a label stating that the substance is poisonous but the mothers do not read the label. Zinc stearate has no advantage over zinc oxide. It is supposed to evaporate more rapidly. The bright top attracts the child. Usually the mother will give the child anything to play with if it is crying. The bright top attracts him and he will inhale the zinc stearate powder with, as a rule, very serious results. If we can discourage the use of the zinc stearate powder, we will do a very great deal. If we will try to instruct the mothers that they insist on a proper label on zinc stearate it will do good. I am sure the committee will discourage the use of it. We cannot prevent the manufacture of it but we can advise the mother of the danger and in this way accomplish a good deal.

Dr. W. A. Mulherin, Augusta: Dr. Goldsmith has introduced a very practical subject here. We seem to be centering on zinc stearate powder largely because it is poisonous and secondly because it produces pneumonia. But all powders will give you about the same result if you get pneumouia. It is just as natural for a child to use his sense of taste in trying to learn something about an object. We cannot prevent the baby if the mother is not on the watch, getting hold of the can of powder and getting it down its throat. I think the responsibility is first upon the mother and then upon the manufacturer. I know something about the American Medical Association Committee because I was vice-chairman when that committee was formed and Dr. Abt of Chicago was chairman. We spent a lot of time sending out questionnaires to find out the cases that had died. Their report was to discourage the use of zinc stearate powder and also other powders, but at the same time they knew it would be useless to attempt this so they got in conference with the manufacturers who promised to put an automatic stopper on the can so if the child did get hold of it he could not get it in his mouth. That promise has not been fulfilled. I have had several cases at home of the pneumonia type. Recently I have noticed that none of the cans have this top. I think the medical profession should take the stand and go on with the fight that no powder that has not an automatic stopper should be used. We do not need powders but the mothers will use them. The best way to handle it is that no powder that has not this automatic closing top should be used and the mother should be told not to use it.

Dr. L. H. Goldsmith, Atlanta (closing the discussion): Dr. Mulherin said the responsibility was first on the mother and second on

the manufacturer. Personally I do not agree with him. I think the first responsibility is on the doctor, next the mother, and lastly the manufacturer. If the doctor will always advise the mother and tell her what the danger is and what trouble may come from it, she will be more apt to think of it than if she is left to read the label on the can. Most of them just look to see what it is, whether it is talcum powder or tooth paste.' I was looking at some cans of this powder the other day and one container, I think it was Merck's, had a safety catch on the can but the top of the can was so small that the baby could put it in his mouth, and also the catch worked so easily that it would only take a small amount of pressure to put it on. I think all the cans should have a much larger top and a safety catch that would be more difficult to open.

PROCEEDINGS OF THE GENERAL
MEETINGS OF THE SEVENTY-
EIGHTH ANNUAL SESSION OF
THE MEDICAL ASSOCIA-
TION OF GEORGIA,
ATHENS, MAY 11,
12, 13, 1927

FIRST GENERAL MEETING
WEDNESDAY, MAY 11

The Association was called to order at the Colonial Theater, Athens, at 10:10 A.M., by the President, Dr. V. O. Harvard, Arabi.

The President declared the Seventy-eighth annual session of the Medical Association of Georgia duly opened.

Invocation: Rev. James C. Wilkinson.

Father, we thank Thee for this day and for this Association that gathers here, for the cause which they represent, for the spirit of investigation and science which are theirs, for the sacrifice that was necessary to bring about this good day; for the personal characteristics that are developed as we stoop to serve humanity, for the development of heart and sympathy and insight and for the generous spirit that is borne of such service; for the large contribution made to humanity, to its aches and its pains and for the economic contribution made to the world; for this group that meets for the betterment of their profession and therefore for the betterment of all humanity. Lead them to Thy truth that they may greatly serve out the generation of which they are a part. Lead them in their discussions. Lead them in their planning. Lead them in their sympathies for humanity that suffers. Lead them as they meet in our city and as they go back to their homes for Christ's sake. Amen.

Address of Welcome: Captain J. W. Barnett, Athens.

Mr. Chairman, Ladies and Gentlemen: There seems to have been some confusion on the part of the local committee of arrangements in fixing the program for this occasion. They evidently did not take into consideration the fact that the major portion of this Association was also in session at this time, that is, the Ladies Auxiliary. Whenever the ladies have affairs to consider we should not lose sight of them. His Honor the Mayor has been called upon to deliver the address of welcome this morning and also the Ladies Auxiliary and found it impossible to appear at both places at the same hour, so he naturally did what he conceived to be the next best thing—he selected me to appear in his stead. Before agreeing to do so, however, at the eleventh hour I made this proposition to him. I said, "Now, your Honor, if you will allow me to use this morning a copy of your address which you are going to use to the Ladies Auxiliary, I will agree to appear." He said, "That is fair enough." Here it is, this voluminous and highly technical address. Personally I do not feel like submitting it to you, so I am going to put it to a vote. All in favor of my reading this address please signify by saying aye, contrary minded, no. The nos have it, so I am thrown on my own resources just as I expected. This brings to mind a little assembly that happened in Athens on a similar occasion a short time ago in which there were assembled some very distinguished professional gentlemen. One was called on to express his views as to the trend of affairs in the South. He says, "You know I am from the North, it is true, but I was reared in the South and naturally I cling to southern ideals and customs. When I was growing up everybody felt that for a man to hide behind a woman's skirts was a coward, but at this time if a man hides behind a woman's skirts he is a magician." The Mayor is evidently a magician and is a most successful one.

I have the honor of being a member of one of the professional societies of this country, The American Society of Engineers. I used to attend the conventions regularly. We used to meet annually in the big cities of the country. There was no auditorium in New York or San Francisco that we did not fill, but that was before the passage of the Volstead Act. The gain on those occasions was something marvelous. It was no difficulty whatsoever to span the Atlantic with a bridge, no difficulty to build to the stars. Today we are scarcely able to muster a corporal's guard. The men have turned to more serious affairs. Engineers are beginning to delve into the bowels of the earth, bringing its secrets up to man.

Doctors have also turned to delving into deeper things, the bowels of man. They are finding what we term theoretical bowels, things they never knew existed before. So this is an advanced age in which we live. We have lost our liquor but we are gaining other things through that agency.

We are delighted to have you good people in Athens. It is very fitting that you should have come to the home of Dr. Crawford W. Long for the holding of this convention. There is no man in your profession who has done more for humanity than this distinguished citizen of Athens. (Applause.)

We are always glad to do him honor. While in the city we wish to direct your attention particularly to the Athens and Clark County health record. We do not take second place to any one in the country. No city or community has expended more time and money than Athens and Clark County in the improvement of health conditions. Through the efficient services of Dr. Applewhite and Dr. Bagby, the present health officers, the Child Health demonstration of Athens and Clark County have been received on a high rank in the health statistics. We are very proud of the accomplishments along these lines and we know that it is of interest to every one of you gentlemen and we hope that you will take the time to investigate for yourselves the work that has been done by these departments. We realize that Athens is the exponent of the lives of thousands of citizens in Georgia and it is incumbent upon us to provide for them the very best health conditions that can prevail anywhere. Dr. Pound a few days ago in an address on the question of health said they had a hospital of thirteen bed capacity and there has not been a single time in the past seven years that that hospital has been half filled with more than 800 students. That seems to me a most marvelous health record. The same thing can be said in regard to the University. So there is no question about the health record of Athens. The Commonwealth Fund of New York considered the question of having a health demonstration in the South. They made demonstrations in all the health centers in the country and finally determined upon Athens as the logical place. Consequently they have worked wonders in the improvement of health conditions among children and adults. We are very proud of these people and we want the world to know just what they are doing, because the information accumulated through their agencies should be disseminated throughout the South. We have in this community some of the best regulated hospitals in the land. We trust you will take occasion to visit them all, St. Mary's, the Athens General Hospital and Fairhaven Tu-

berculosis Institute, recently organized. Athens feels that she is prepared to handle any conditions that may arise in the matter of health regulation.

I am instructed by his Honor the Mayor to say that the gates of this city are wide open to you and that hospitality is extended unbounded. We trust that your stay in our midst will be enjoyable. We feel that there is nothing we can do that will be withheld. We are delighted to have you and we trust that you will make your stay long and pleasant. (Applause.)

Address of Welcome: Paul L. Holliday, President Clark County Medical Society, Athens.

Mr. President, members of the State Medical Association of Georgia, ladies and gentlemen: Many years ago Athens established a reputation for the beauty of its women, for the leadership of its men and for the hospitality of its homes. Many of you who have sojourned among us can testify as to the beauty of the women. Those of you in the profession have learned of the culture of the men and those among us here today will bear testimony to the hospitality of our city.

As President of the Clark County Medical Society, it is my pleasure to welcome you as our guests. May your stay be pleasant. May you wish to come again. May you when you leave Athens and the Clarke County Medical Society feel that they have been honored by having such a distinguished gathering.

I might tell you of the medical history of Athens. I might tell you of St. Mary's Hospital, the Athens General Hospital, and Fairhaven Tuberculosis Institute, of the Athens Child Health demonstration, the wonderful public health demonstration that is being done in our community. We want you to see for yourselves. We want you to be at home. May I again welcome you and assure you that we are glad to have you.

Response to Address of Welcome: Dr. A. J. Mooney, Statesboro.

Mr. President, members of the Medical Association of Georgia, ladies and gentlemen: I was telling a friend of mine the other day that I had a duty to perform that I felt was rich in potentialities, in description of greatness and tradition, and all such things. He said, "Doctor you have a pretty hard job." I wondered why. He says, "There have been men of supreme intellect who have been making speeches in Athens for generations and all the things that you are supposed to describe have already been described in the most beautiful language." I thought in all probability he was correct until I found out that this is only the second time that the Medical Association of Georgia has ever had the pleas-

ure of meeting in this city and then I said, "Son have you ever sat down on Saturday after Thanksgiving and had them bring in a plate of hash of various and sundry taste and appearance and have you ever wondered what all could have entered into the manufacture of that hash, and then you remember it was the remains of the turkey that you had on Thanksgiving Day that on Saturday evening was hash." I hope that even though turkey has been served on many times before, that I can make a hash that will be presentable.

It is fitting indeed that the apostles of health should meet in a city of culture. Making up the audience here today are people of Athens as well as men from all over the state. The crowd is not as numerous as I have seen it but the distribution is about equalized. In the audience are men with aspirations, with inspiration and ambition before them. Also there are men in early maturity with aspiration, inspiration and ambition, and likewise there are men that have entered under the banner called "service." The doctors of Georgia have done a glorious service for their state. With all our intellect, inspiration and ambition there is something lacking. Georgia is set back from the position that she should occupy in health measures. Do you know that ten per cent of the deaths from typhoid fever in the United States occur in the state of Georgia? Do you know that we are just as far behind in other measures? If we could make the keynote of this meeting today the question of health, the question of preventive medicine, the question of vital statistics, this will have been one of the greatest meetings that the State Medical Association has held in a good many years. The material and your workmen are rich, we are waiting to furnish the sinews of war to carry on to the battle of prevention, and the publication of vital statistics.

Lying under the mountains of Georgia is untold wealth. Running through the rivulets and streams of Georgia is a potential means of power that would bring far in advance of what we spend today were it not for the fact that capital is afraid to come to Georgia because they have no means of finding out as to the potential loss of manpower in our community by disease. They are afraid to put in their millions on account of the fact that sickness might weaken the manpower to such an extent that it might not be a paying investment. We must keep our vital statistics, we must get in the registration area so these people on the outside can find out what we have. Wonderful strides are before us to be made in preventive medicine. We owe it to humanity to put forth our great service. The medical profession of Georgia stands ready to do that.

They have given their time and they have given their money and they have given their health and lots of time in order to carry on health measures. Service has always been the keynote of the medical profession. Some of us have very little to show in a financial way but all of us, gentlemen, have made a mark that will stand as a monument after we have gone. I was thinking as I was coming over about a little thing I read the other day about a family of tuberculous girls. The parents had died and left these four girls. One of them died with tuberculosis, then another and so on until only one was left. She had labored long and hard and finally she came to die. When the shadow was just off in the distance, when she came to the passing time, when the old family doctor stood there and was administering to her, she said, "Doctor, when I stand before my Almighty what shall I say?" The doctor picked up those hands that were gnarled and worn and he said, "Annie, say nothing, show Him your hands." That, ladies and gentlemen, is applicable to the medical profession in Georgia. When I think of the place we are meeting today, I feel as Moses did when he stood before the burning bush that I stand on hallowed ground. When I think of the great traditions of this institution, when I think of its graduates who are scattered over the whole face of the earth, when I think that upon its graduates the sun never sets, when I think of the inspiration of this atmosphere, when I think that it has been fixed as an ideal place of residence by Baldwin and Finney and Cobb, and all that type of men that had so much to do with the growing history of Georgia and whose influences have been felt throughout the whole nation, it makes me wonder if I am equal to the task. I know I am not, but in an humble way I call your attention to these great men who have gone before. There is Baldwin who first founded this institution in 1748. It was called at that time Franklin College. Since then think of the illustrious band of men who have presided over it, the numbers whose names I cannot recall and in this atmosphere let us think that with us today is the spirit of Crawford W. Long whose memory shall always live. Let us think of the spirit of H. B. M. Miller, the orator of the mountain. Let us feel if they could give us advice today they would say, "Medical Association of Georgia put forth your best efforts to put over health measures and to get more funds to carry on the great and glorious work of preventive medicine and vital statistics." We are glad to be in your presence in your city and to partake of your hospitality and when the time comes for us to go we shall carry with us pleasant recollections and when

the snows of winter will come when we are sitting around the fire, we will take from the treasure chest of our memory pleasant memories of our meeting in Athens of the Medical Association of Georgia. (Applause.)

The President: We will next have some announcements and the reading of the minutes of the House of Delegates.

(Dr. Bunce then reported briefly the action of the House of Delegates at the first and second meetings. See published report.)

Upon motion duly made and seconded it was voted that the action of the House of Delegates be ratified.

The Secretary: We have a telegram from Dr. B. H. Minchew, the Second Vice-President, regretting his inability to be present as he is being entertained by a new arrival in his home, a beautiful baby girl.

Scientific Program: Dr. M. E. Winchester, State Board of Health, read a paper entitled, "History of Public Health Work in Georgia." Discussed by Drs. J. M. Anderson, Columbus; T. F. Abererombie, Atlanta; J. L. Campbell, Atlanta; W. C. Hafford, Waycross.

Dr. W. W. Young, Atlanta, read a paper entitled, "The Newer Psychology in Its Practical Application to General Medicine." Discussed by Drs. G. L. Echols, Milledgeville; J. N. Brawner, Atlanta, and W. W. Young, Atlanta.

Dr. H. D. Allen, Jr., Milledgeville, read a paper entitled, "Dried Yeast Therapy in Certain Psychoses. Case Reports." Discussed by Drs. R. C. Swint, Milledgeville, and H. D. Allen, Jr., Milledgeville.

Dr. M. A. Fort, State Board of Health, read a paper entitled, "Popular and Professional Misconceptions Regarding Malaria." Discussed by Drs. G. M. Murray, Atlanta; J. G. Dean, Dawson; E. T. Coleman, Graymont; M. A. Clark, Macon, and M. A. Fort, Atlanta.

As this completed the program for the morning, on motion duly made and seconded, it was voted that the Association adjourn at 1 P.M. to reconvene at 2 P.M.

FIRST DAY—AFTERNOON MEETING

The Association reconvened at 2:10 P.M. and was called to order by the President, Dr. V. O. Harvard, Arabi.

Dr. W. W. Anderson, Atlanta, read a paper entitled, "Rickets (Lantern Slides)." Discussed by Drs. T. D. Walker, Macon; W. A. Mulherin, Augusta; T. B. Gay, Atlanta, and W. W. Anderson, Atlanta.

Dr. Joseph Yampolsky, Atlanta, read a paper entitled, "The Use of Banana Diet in the Treatment of Chronic Intestinal Indigestion in Children." Discussed by Drs. W. N. Adkins, Atlanta; R. C. Maddox, Rome; Linton Gerdine, Athens; W. A. Mulherin, Augusta;

H. P. Harrell, Augusta, and Joseph Yampolsky, Atlanta.

Dr. W. A. Mulherin, Augusta, read a paper entitled, "Feeding Versus Starvation Diet in Treatment of Summer Diarrheas." Discussed by Drs. R. L. Miller, Waynesboro, A. J. Mooney; Statesboro; Benjamin Bashinski, Macon; R. C. Maddox, Rome; T. D. Walker, Macon, and W. A. Mulherin, Augusta.

Dr. M. Hines Roberts, Atlanta, read a paper entitled, "Pigments in New-Born Infants." Discussed by Drs. T. B. Gay, Atlanta; E. C. Thrash, Atlanta; W. W. Young, Atlanta; Paul Eaton, Augusta, and M. Hines Roberts, Atlanta.

Dr. L. H. Goldsmith, Atlanta, read a paper entitled, "Zinc Stearate Poisoning." Discussed by Drs. Linton Gerdine, Athens, Benjamin Bashinski, Macon; W. A. Mulherin, Augusta, and L. H. Goldsmith, Atlanta.

The Secretary announced that owing to a death in the near relationship of Mrs. Francis Long Taylor and Miss Emma Long, the reception at their home had been cancelled.

Dr. W. R. Dancy moved that the Association express their deep sympathy to these ladies in a note to be written by the Secretary and delivered to them and that the Secretary be instructed to send them a suitable basket of flowers in keeping with our own high record to them and their illustrious father. Motion seconded.

Dr. Bunce moved as an amendment that Dr. Dancy write the note. Motion as amended carried.

On motion the Association adjourned at 4:45 P.M. to reconvene at 8 P.M.

FIRST DAY—EVENING MEETING

The Association reconvened at 8:30 P.M. and was called to order by the President, V. O. Harvard, Arabi.

Dr. L. D. Parry, Thomasville, read a paper entitled, "The Radiological Interpretations of Bone Tumors." Discussed by Drs. F. G. Hodgson, Atlanta, and L. D. Parry, Thomasville.

Dr. J. J. Clark, Atlanta, read a paper entitled, "Diagnosis of Syphilitic Bone Lesions: Cases from the Clinics of the Emory University School of Medicine." Discussed by Drs. R. W. Richardson, Macon; F. G. Hodgson, Atlanta; Joseph Yampolsky, Atlanta, and J. J. Clark, Atlanta.

Dr. J. W. Landham, Atlanta, read a paper entitled, "Treatment of Superficial Malignancies by Combined Methods." Discussed by Drs. Robert Drane, Savannah, and J. W. Landham, Atlanta.

Dr. Wallace L. Bazemore, Macon, read a paper entitled, "The Necessity of Pyelograms in Urological Diagnosis. (Lantern Slides)." Discussed by Drs. E. H. Floyd, Atlanta, and

R. W. Richardson, Macon.

Drs. E. H. Greene and Robert C. Pendergrass, Atlanta, read a paper entitled, "The Injection of Uterus and Tubes with Iodized Oil (Lipiodol) as an Aid in Diagnosis. (Roentgenological Study of Cases—Lantern Slides.)" Discussed by Drs. E. C. Davis, Atlanta; C. H. Richardson, Jr., Macon, and Robert C. Pendergrass, Atlanta.

On motion the meeting adjourned at 10 P.M. to reconvene at 8 A.M. Thursday.

THURSDAY, MAY 12, 1927

SECOND DAY—MORNING MEETING

The Association reconvened at 8:20 A.M. and was called to order by the President, Dr. V. O. Harvard, Arabi.

Dr. Earl Floyd, Atlanta, read a paper entitled, "The Etiology of Urinary Infection and Methods of Determination." Discussed by Drs. W. F. Reavis, Waycross; R. M. Harbin, Rome; W. A. Upchurch, Atlanta, and Earl Floyd, Atlanta.

Drs. Paul Eaton and F. L. Damren, Augusta, presented a paper entitled, "Increasing the Usefulness of the Wassermann Test." Discussed by Drs. Lee Howard, Savannah; J. C. Metts, Augusta, and Paul Eaton, Augusta.

The Secretary read a telegram from the Iowa State Medical Society in session at the seventy-sixth annual meeting congratulating and sending best wishes to the Medical Association of Georgia.

It was moved that a telegram be sent to the Iowa State Medical Association. Motion seconded and carried.

Dr. J. O. Elrod moved that a telegram of condolence be sent to Dr. M. M. Head who is ill at Wesley Memorial Hospital, and another to Dr. A. J. Waring, Savannah, who is also ill. Motion seconded and carried.

Dr. Miller moved that a telegram of sympathy be sent to the ex-president, Dr. J. W. Palmer, who was called home because of illness. Motion seconded and carried.

Dr. R. S. Leadingham, Atlanta, read a paper entitled, "Rat-Bite Fever." Discussed by Drs. V. P. Sydenstricker, Augusta; W. A. Mulherin, Augusta, and R. S. Leadingham, Atlanta.

Dr. J. W. Daniel, Savannah, read a paper entitled, "Role of Plasma Chloride in Lobar Pneumonia." Discussed by Drs. E. C. Thrash, Atlanta; T. J. Charlton, Savannah; V. P. Sydenstricker, Augusta; J. C. Metts, Augusta; M. S. Euen, Atlanta, and J. W. Daniel, Savannah.

Dr. K. C. Rice, Atlanta, read a paper entitled, "Intestinal Obstruction—Cause of Toxemia in and Treatment of." Discussed by Drs. W. A. Selman, Atlanta; R. H. Chaney, Augusta; E. C. Thrash, Atlanta; C. W. Rob-

erts, Atlanta; Lee Howard, Savannah, and K. C. Rice, Atlanta.

Dr. A. G. Fort, Atlanta, read a paper entitled, "Otomycosis." Discussed by Drs. L. C. Rouglin, Atlanta; J. C. McDougall, Atlanta, and Harvey Cabaniss, Athens.

The meeting then adjourned at 11:20 to reconvene at 11:45 for the reading of the President's address.

The meeting was called to order at 12:00 by Dr. J. A. Redfearn, Albany, the First Vice-President, who requested all ex-presidents to take seats on the stage.

The Secretary then read the resolution prepared by Dr. Dancy, which follows:

Whereas, our Heavenly Father has seen fit to remove from our midst Mr. Stewart, the relative of our beloved friends, Mrs. Frances Long Taylor and Miss Emma Long, the daughters of our distinguished co-worker and the renowned benefactor of the human race, Dr. Crawford W. Long,

Be It Resolved, by the Medical Association of Georgia in convention assembled that we express to Mrs. Frances Long Taylor and Miss Emma Long our profound sympathy in the great bereavement which has befallen them.

The resolution was adopted as read.

Dr. Redfearn: It gives me great pleasure to present to you our President, Dr. V. O. Harvard, Arabi.

Dr. Harvard then delivered his presidential address. In accordance with custom which was not thrown open to discussion.

Dr. Redfearn: We are very glad that our guest, Dr. E. A. Hines, has arrived. We are going to hear from him more at length tonight. I just want you to look at him and get some idea of whom you will have to listen to tonight.

Dr. Hines: It is a great pleasure for me to bring to you briefly a message from the South Carolina Medical Association. We are just one year older than you are. In the point of numbers and in the form of achievement the messages that are coming from our fraternal delegates to Georgia lead me to believe that you far surpass us. Years ago we sent our delegates to you and they came back with wonderful stories of what they had seen. It reminded of what those first great doctors, the followers of Moses, found after years of wandering in the wilderness. They kept wandering around for a while, perhaps enjoying the milk and honey but while they were there they ran across some supermen and they hurried back across the desert and told Moses that there were men tall and broad who appeared most extraordinary. We have sent our delegates to you and they came back with somewhat similar reports. I confess to you,

Mr. President, that I was somewhat frightened in coming to you on my first visit. After listening to the address of your distinguished President I feel that what those delegates have told us is absolutely true. The message that he has brought to us this morning will certainly inspire me for a long time to come. We have depended upon you to help us along in South Carolina and with your wonderful skill in organization you have done that nobly. Often you have asked our delegates to come across to Georgia and just a few days ago three or four of your distinguished men came across to Savannah and we listened to them and we are satisfied there are giant intellects in Georgia.

On motion the Association adjourned at 12:30 to reconvene at 2 P.M.

SECOND DAY—AFTERNOON MEETING

The Association reconvened at 2 P.M. and was called to order by the President, V. O. Harvard, Arabi.

Dr. L. G. Baggett, Atlanta, read a paper entitled, "Surgery of the Biliary Passages. (Transplantation of Biliary Fistulous Tract in Duodenum.)" Discussed by Drs. F. K. Boland, Atlanta; W. A. Selman, Atlanta; J. K. Quattlebaum, Savannah; G. W. Fuller, Atlanta, and L. G. Baggett, Atlanta.

The President then introduced the Governor-Elect of Georgia, Dr. L. G. Hardman.

Dr. Hardman: I do not think it is hardly fair to interfere with your program just at this time but your President insisted that I come over and I am glad to be here.

I want to say just a word on the subject of the relation of chemistry to medicine. Before I do that I would like to remind you that since the last meeting of this Association in Athens, and perhaps some of you are here today who were at the meeting, we have lost some of the most distinguished men in medicine in this section of the country. One of the men I am sure you call to mind, who really had charge of the program, was the lamented Dr. I. H. Goss, Dr. Ralph Goss' father. You remember that at the meeting we went to the city of Jefferson where we unveiled a monument to Crawford W. Long, the great discoverer of sulphuric ether as an anesthetic. Dr. McArthur, who is here present, was the president at that time. This is the Crawford W. Long home though the discovery was made in Jefferson. He afterward moved here and died.

I thought we might be reminded of the location and surroundings of the city of Athens; not only that but of some of the great men who once lived in this great city, like Benjamin H. Hill, and the Chancellor of the University of Georgia. I thought we might like to think of them.

Paracelsus in 1600 declared that the purpose of chemistry was not to create gold or to manufacture metal. With that declaration over three hundred years ago we have again in the study of medicine come to a real study of chemistry as a help to medicine. There has been a great deal of research work and wonderful progress made in the study of biology as connected with medicine but we are coming again to associate with biology and with histology and with pathology the real fundamental science, as it appeals to me and as it has been recognized by scientists, that is, chemistry and its relation to an independent age in medicine. When we think of the processes and when we think further that the science of chemistry deals with the transformation of metal, then we can begin to appreciate a little bit the scientific relation of chemistry to medicine. We think of the digestive processes and we think of the diseases that result from a disturbed process of digestion, like ulcer and several other diseases that we might mention. Then we begin to think of the relation of chemistry to food and what food really is. I am not speaking of chemistry as applied to the analysis of the elements themselves but to the transformation. I might say that outside of the food, we might consider the toxin and anti-toxins that are in a crude form used by the physician, it appeals to me that the undesirable things that enter into the composition of toxins and anti-toxins will be absolutely eliminated by chemical research and that you will have substances that are far superior to the substances we use today in the prevention of diphtheria.

It is wonderful what chemistry combined with biology will net to medicine in the future. It might be said to be the independent age in medicine, the relation of chemistry to medicine. We think it is a wonderful progress that has been made in biology and what it has brought to our relief in the prevention of disease. I believe the time is coming when associated with it will be an independent age or an age of medical chemistry. We think of foods. Many years ago, not so many—up to 1914—we knew foods practically on a purely chemical basis. Since that time biological method has entered into it and there has been wonderful progress made in determining the character and value of the food. In this connection we might mention McCollum and many others. It seems to me that the doctor himself must now begin to study the science of chemistry in order that we may take every single element in the human body and be able to determine not only the elements themselves but trace those that enter into the transformation. In the year 1926 there was spent in money five hundred million dollars for

medicine and out of that amount three hundred million was spent for patent medicine. That is terrible. But I believe those things are going to be eliminated on the basis of medical chemistry. I believe we will get down to the real thing in life in chemistry that we must all recognize.

I want to say this thing before I sit down. We are in a city that has a record that perhaps you will not find in any city in the United States, that is, in respect to the work that is done by the dentists in the city of Athens. I happen to have in my pocket some of the oral legislation that was passed at the Dental Society of the Eighth District at Washington the other evening, showing they are giving 100 per cent efficiency in oral surgery or work done upon the teeth of the children of the city of Athens. I think the doctors are beginning to appreciate the principles of dentistry. The oral surgeon is beginning to appreciate what the science of dentistry means to the profession as a whole. There is no class of people that is more enthusiastic in their work than is the dentist. The doctor must know that the foods which are the energy producing substances must go through the mouth and the teeth must get the first look at them. We must recognize the great work they are doing. There is nothing like it in the United States.

I thank you for the honor of appearing before you.

The President: We will now resume the reading of the papers.

Dr. J. K. Quattlebaum, Savannah, read a paper entitled, "Chronic Duodenal Ileus." Discussed by Drs. C. Thompson, Millen, and J. K. Quattlebaum, Savannah.

Dr. C. W. Roberts, Atlanta, read a paper entitled, "Concerning the So-Called Irreducible Minimum in Surgical Mortality." Discussed by Drs. R. M. Harbin, Rome, Stewart R. Roberts, Atlanta; C. H. Richardson, Jr., Macon; G. W. Quillian, Atlanta, and C. W. Roberts, Atlanta.

Dr. Thomas Harrold, Macon, read a paper entitled, "The Present Status of Stomach and Duodenal Surgery as Observed in Various American and European Clinics." Discussed by Drs. R. C. Franklin, Swainsboro, and J. K. Quattlebaum, Savannah.

Dr. Charles E. Waits, Atlanta, read a paper entitled, "Tetany Following Secondary Thyroidectomy—Report of Case." Discussed by Drs. A. R. Rozar, Macon; A. Elkin, Atlanta; C. W. Roberts, Atlanta, and Charles E. Waits, Atlanta.

Dr. M. C. Pruitt, Atlanta, read a paper entitled, "Review of Recent Literature on the Injection of Hemorrhoids with Analysis

of Fifty of the Author's Recent Cases." Discussed by Drs. A. Elkin, Atlanta; T. Toepel, Atlanta, and M. C. Pruitt, Atlanta.

Dr. Ralph H. Chaney, Augusta, read a paper entitled, "Congenital Pyloric Stenosis in Adult Life." Discussed by Drs. W. R. Daney, Savannah, and Ralph H. Chaney, Augusta.

On motion the meeting adjourned at 5:45 P.M. to reconvene at 8:30 P.M.

SECOND DAY—EVENING MEETING

The Association reconvened at 8:30 P.M. and was called to order by Dr. J. A. Redfearn, Albany, the first Vice-President.

Invocation: Rev. Eugene L. Hill, Athens.

Our Heavenly Father we thank Thee for the privilege of recognizing Thee in all the work which we do in this world. We thank Thee for the great purpose which Thou hast given us in all the works of nature and in all its developments. We thank Thee for this splendid science of medicine which Thou hast given us in leading men to search for truth and in fighting the enemies of human health so that they may lead us just that much closer to Thee. We thank Thee for the progress which has been made in surgery, in relieving human suffering, in sparing human life, and in making human lives happier, bigger, larger in all their different reactions.

Now we pray that Thy blessing may rest upon this Medical Association of the state of Georgia and on this body of men that meets from time to time to confer, to enlarge their own interests, fire their own enthusiasm, deepen their convictions and strengthen their faith. Help us we pray in all these studies, in all the work we do. Help us to see the way that the hand of God is always pointing to. Bless the exercises tonight, help us to get some truth in this service tonight that may lead us into a broader phase of the real work of the development of the human body, the prevention of human diseases, and we pray that Thou wilt bless us all in meeting the demands which Thou hast made upon us in this world. We ask it all in Thy own name. Amen.

Dr. Redfearn: We will next have the presentation of the badge of service by a former president, Dr. T. J. McArthur, Cordele.

Dr. McArthur: Mr. President, Members of the Medical Association of Georgia, Ladies and Gentlemen:

I want to assure you in the beginning that this is indeed a very pleasant task that has been assigned to me. Personally, I think it is a beautiful custom that this Convention has inaugurated of conferring a service badge to those whom the Association has honored by electing them and giving them the privilege of rendering service as president of this organization. I think it is very appropriate that this organization is giving this kind of recog-

nition to our presidents as they close their administration.

It is a pleasant task always to pay tribute where tribute is due, to bestow honor and praise where they are deserving and to give recognition for service that is worth while. It is a particularly pleasing task when this service has been such an outstanding service, such a great service, such a lengthy service and such a valuable service as that of the man whom we honor this evening. This man who has been our leader for the last twelve months has been a member of this organization practically all of his professional life and for fifteen years served as Counsellor of his district, representing the Third Congressional District in this convention and looking after the needs and welfare of the medical profession in that district for fifteen long years this man has rendered a service as Counsellor not only to the members of the profession in his district but to the profession of the entire state and to the people at large that has not been the privilege of many Georgia doctors to render. I know of what I speak. He is my neighbor. He hails from my county. I do know something of the sacrifices he has been called upon to make. I would like to speak just one minute to tell this. It has been said that one of the reasons that the great Napoleon was so successful as a leader and as a general was that his soldiers claimed to carry in their bosoms imprinted under their hearts the image of Napoleon. I would like to have you think of this man to whom we do honor tonight as having breathed the high ideals and purposes of this organization. It was said one of these soldiers who followed the great Napoleon and had been wounded in battle had made many sacrifices for his leader. He had been wounded in the breast and the surgeon was operating upon him. He showed that same bravery and fortitude not only lying on the operating table and submitting to the operation without complaint but when the surgeon hesitated the soldier said, "Cut deeper, Mr. Surgeon, and you will find the picture of the Emperor." When this man whom we honor tonight has been called in to perform one sacrifice after another he has not complained but loyally he has said, "Cut deeper and you will find that imprinted in the depths of my heart are the purposes and ideals of this great organization which we all love so much."

I have said that it is always a privilege and a pleasant duty to pay tribute and to bestow honor and praise and give recognition to those who have served us so long and so well. That is all very true, but with me it is a more personal, a more distinguished pleasure because this man is the man that he is. It has been my privilege to know him not

only all of his professional life but to know him before he began the study of medicine.

I have known him intimately for all these years and I want to say to you that I never knew a man who was a more consecrated Christian. I never knew a doctor who was a more consecrated Christian doctor, a devoted father, a loving husband, a good brother and a loyal true friend. I have seen him tried, I have tried him myself and I know he is all this and it makes it a particular privilege to me on this occasion to bestow this honor in behalf of this organization upon such a man as that. But to me it is a more particular pleasure, a more distinct pleasure because he has been my personal friend, because I have worked by his side and because I have had opportunity to know something of his character, and because I have been his friend and have been served by him. I have been privileged to serve him and it makes me proud on this occasion in behalf of this Association to bestow on him the badge of service.

It may be well enough to say something of why and what it means; what we mean by this little ceremony and by this little gift. I would have you understand that it means not only recognition of these things that I have spoken about but that it means in a small way to say to him that we love him. We love him for what he is, we love him for what he stands for, and we love him for what he has done. We want to say in these few words as fellow members with him that we deeply appreciate the services he has rendered not only to the members of this Association but to this great state and ourselves. I think, too, it might be well to say something of what it means to him who is to receive this badge of honor.

Dr. Harvard when you receive it you remember the things which are in our minds when we give it to you. Remember how we loved you, how we respect you, and how much we love you for what you are. Whenever you take it in your hand and turn it over, may it bring pleasant memories of the association that you have had with us, the pleasure you have had in serving us and this great commonwealth of ours. Prize it, wear it, think about it as coming from those who love you and esteem you as brother and friend. In behalf of the medical profession of Georgia, Doctor, it affords me very great pleasure to present to you this badge of service.

Dr. Harvard: Dr. McArthur, Members of the Medical Association, Ladies and Gentlemen:

Dr. McArthur has so taken me off my feet that I hardly know what to say. I want to say this much, I have striven to do the best I could for the Association through all my

life and as I am winding up my term as president, I do not mean to quit the Association and turn my back on it but I expect to do the best I can for it during the remaining days of my life. I thank you.

Dr. Redfearn: It gives me great pleasure to introduce to you the Secretary of the South Carolina State Medical Association, Dr. E. A. Hines, who will now address you on "Periodic Examinations of Apparently Healthy Persons." (Dr. Hines address appeared in the June issue of the Journal.)

Memorial Exercises: Dr. M. A. Clark.

Mr. President, Fellow Members of the Medical Association of Georgia, Gentlemen, and last and best, Ladies: It is said that after a certain age in life memory begins to live somewhat in the past. These gray hairs might suggest that possibly that time is beginning to come with your speaker, so that if he goes back into the past just a little this evening, I trust you will be patient with him.

In 1849, seventy-eight years ago, a call was sent in for the doctors of Georgia to meet in Macon to establish a medical association. Responding to this call, two came from Augusta, three from Savannah, four from Atlanta, fourteen from Macon, and fifty from villages and small towns, making seventy-six meeting on that memorable day to organize this grand old Association of ours, the Medical Association of Georgia. The first president was from Augusta, the first secretary from Macon. In those days the best men were not necessarily in the cities, but like Wise and Mauntins, Joseph McDowell and Maehesney, they did some of their best work and laid their foundations for future work as country physicians. So it is not surprising that most of them were country physicians. Fifty years after this only three charter members remained. I may add that one of those physicians was Crawford W. Long, who lived for a time in Jefferson. In all these years there have been seventy-seven presidents. Four of them we are unable to account for because of the loss of some of our records.

It is interesting to study some of the history and some of the workings of our Association. Who was the good man who decided upon the scheme I do not know. You recall the symbol of the Association, the clasping of the two right hands—the elapsing of the right hands of brothers in the medical profession to strengthen each other in medical service. But the frailties of human nature have stepped in and the descendants of these men sometimes forget the significance of that clasp of hands and would not always extend that strength to their brother physicians as they should have done. May every one remember the clasp of that hand and what it stands for

and may we in the future have a good strong clasp of the right hand for each other, never criticizing or finding fault, but strengthening each other in the mighty task of taking care of the suffering world.

Of these seventy-seven presidents, forty-three were from the cities and thirty-four from the villages and towns. Of all the seventy-seven men honored by this great Association only twenty are living—twenty ex-presidents. They labeled us this time past presidents, and so bearing the label of past president for the past three days it is no wonder that my mind thinks a little of the past. Would that we could show more appreciation of each before the grim monster should knock at the door. How much better it is to give praise and encouragement during life, but as the custom is, we usually wait until they are taken away before we pay tribute to them.

This year forty-five of our profession have had to answer to the last call. It would be too tedious to mention all. It would hardly be fair to mention any if not all.

It is interesting to turn back to those old books to read of those old men, those great men of the other days. That custom has been a little bit forgotten in the last few years in our interest in other things. I am so glad we are taking it up somewhat again. Of these brothers that have passed this year so much might be said of their faithfulness and their service. The poet speaks of opportunity knocking at the door. It seems to me it is hardly appropriate that opportunity should knock. The large portals in front of the gate that opens into a world of action do not always open for you but sometimes have to be opened by you if you accomplish something in life. These forty-five men did not wait for the gate to be opened to enter them into full action, but each one opened the gate. Each one took the opportunity of service to his fellowmen. The gates of some of them may have been small and the gates of some of them larger but each one opened his gate and tried faithfully to do his service.

Of all the virtues, the three greatest are faith, hope and love; faith, the evidence of the things unseen and these grand men of our profession gave us by far the encouragement of the Great Physician by whom we are encouraged to make sacrifice in the service of the world. Hope gave them strength for the service they rendered. Love brightened their hearts and enabled them to comfort the suffering, the sick and the sorrowful. It is said that he who gave his life for his friend no man has shown a greater love. These men showed a greater love for good lives in general, for their friends, their acquaintances and

sometimes their enemies. No greater love can be shown than that. So hope guiding again the Great Physician led them through the valley of the shadow of life and we speak for their loved ones our profound sympathy and good wishes.

The President: Mr. Forbes, the Director of the Y. M. C. A. has a few words to say.

Mr. Forbes: I asked for the privilege of speaking to you tonight on a subject that I wish you would be interested in. It has been my duty and privilege to be in this town for twenty-eight years this fall as general secretary of the Athens Y. M. C. A. During that time I have conducted some twenty-one camps for boys. Some years ago as our work increased our Board of Directors secured the property which we use as a camp. It is about three hundred feet of ground below the Tallapoosa Falls. Our object in providing this camp is to prove to the boy and the girl that God and a good time are theirs. When we began to build for our own boys and girls we realized the big university center and we realized that we must do something not only for our boys but for the boys of the state as well. We not only conduct that camp for the Athens boy but for the boys of the state and the boys of the South as well. Over \$40,000 has been spent on this camp.

The cost is about one-half of what private camps charge. The non-resident camp fee for eight weeks is \$120.00. The Athens boy pays \$90.00 for eight weeks. At this camp we have, I believe, the most ideal location and equipment to give to the boy the time of his life out-of-doors and a Christian supervision on the part of the men who knows the boys that you will find anywhere in the Southland. Last year there were 140 boys, seventy-six of whom were non-resident and sixty-four resident.

We hold also a camp for our girls. This will be ready on June 16th for two weeks. The boys' camp opens on July 1st and lasts until August 25th.

We want you doctors to know about them so you may carry back to your constituency the knowledge of a place that is positively Christian, where Bible classes and morning vesper services are held seven days a week. They are the most popular things we have. We have a great athletic period.

We can take care of 164 boys. We have largely used our own boys in the position of leadership. That is because we have had them from little lads of ten years and we know them. We have had in our camp some of the greatest of Georgia athletes. If you have a boy that you want to put in an environment that will bring him back stronger in body and cleaner in mind, send him to this camp.

On motion the Association adjourned at 10:30 to reconvene at 8 A.M. Friday.

FRIDAY, MAY 13, 1927

THIRD DAY—MORNING MEETING

The Association reconvened at 8 A.M. and was called to order by the First Vice-President, Dr. J. A. Redfearn, Albany.

Dr. Julian Buff, Atlanta, read a paper entitled, "Tonsillectomy, Tissue Coagulation Technique." Discussed by Drs. I. W. Irvin, Albany; L. C. Rouglin, Atlanta, and F. M. Hubbard, Commerce.

Dr. Howard Hailey, Atlanta, read a paper entitled, "Syphilodermata (Lantern Slides)." Discussed by Drs. H. R. Slack, LaGrange; J. Yampolsky, Atlanta, and Howard Hailey, Atlanta.

Dr. Grady N. Coker, Canton, read a paper entitled, "Supra-Condylar Fracture of the Elbow." Discussed by Drs. Theodore Toepel, Atlanta, and Grady N. Coker.

The President: We will now listen to the reading of the minutes of the House of Delegates.

(Dr. Bune then reported briefly the action of the House of Delegates at the third meeting. Cf. published report.)

Dr. Miller: I move the ratification of the minutes. (Motion seconded and carried.)

The President: We will now resume the reading of papers.

Dr. L. W. Grove, Atlanta, read a paper entitled, "Subdiaphragmatic Abscess with Suggestions for Prevention." Discussed by Drs. O. H. Weaver, Macon; W. R. Dancy, Savannah; W. A. Selman, Atlanta, and L. W. Grove, Atlanta.

Dr. W. P. Nicholson, Jr., Atlanta, read a paper entitled, "Chorio-Epithelioma—Report of an Unusual Case." Discussed by Dr. E. L. Bishop, Atlanta.

Dr. G. Y. Moore, Cuthbert, read a paper entitled, "Their Phosphatic Index." Discussed by Drs. J. A. Redfearn, Albany; L. C. Allen, Hoschton, and G. Y. Moore, Cuthbert.

Dr. Calvin Weaver, Atlanta, read a paper entitled, "The Diagnosis of Brain Tumors." Discussed by Drs. C. E. Dowman, Atlanta, and Calvin Weaver, Atlanta.

President Harvard then declared a recess of twenty minutes before proceeding with the election of officers.

Election of Officers:

The Association was called to order at 11:45 and the President asked the ex-Presidents to take seats on the platform.

Dr. Miller: There are just a few minutes before the election and in view of the fact that our retiring president has visited thirteen districts and many county societies, that he has written hundreds of letters at the ex-

(Continued on page 326)

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to Welfare of Medical Profession of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

SEPTEMBER, 1927

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department**GEORGIA PEDIATRIC SOCIETY****OFFICERS**

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Benj. Bashinski, Vice-President, Macon.

W. N. Adkins, Secretary-Treasurer, Atlanta.

SOUTHERN PEDIATRICS

The Medical Association of Georgia is to be congratulated on devoting this issue of its journal to pediatrics. Today, pediatrics is recognized in all first-class medical schools as a major subject, and accordingly is dignified as a separate and distinct department. There is sound logic in this recognition, for fully seventy-five per cent of preventive medicine lies in the pediatric zone, from birth to 15 years of age.

It might be of interest, in this issue, to briefly review southern pediatric progress, in

which Georgia physicians have played important roles. Until 1906 there was no definite organization of pediatrics in the South. Pediatric practice in our Southland did not compare favorably with the character of work done in other sections of America. Today, it does not suffer by comparison, for as high type and as efficient work is done in the South as in any other part of the country.

In 1916, at Southern Medical Association meeting in Atlanta, the first real movement for organization, and betterment of southern pediatrics, was made. At that time and place the pediatric section of Southern Medical Association was created. Georgia pediatricians were quite active in its organization. This section has developed so rapidly, that it is now not only called the "live wire" of the S. M. A., but is said to be the most active pediatric section in the United States.

In 1917 the Georgia Pediatric Society was organized, the first State pediatric society in the South, and one of the first in America. The following year a Georgia pediatrician introduced a resolution before the Pediatric Section of S. M. A., asking for creation of a State pediatric society in each of the sixteen Southern States and the District of Columbia. This resolution was acted on favorably, and a Southern pediatrician was elected secretary of the section, and instructed to proceed with organization. There is today a State pediatric society in every Southern State, and in the District of Columbia. These State pediatric societies are rendering a real service to southern medicine, by bringing practical pediatrics to the general practitioners, yearly, at State Medical Association meetings.

In 1921 the Southern Pediatric Seminar was organized at Saluda, N. C., its faculty and its staff composed of professors from all of the southern universities, and of southern pediatricians of outstanding ability. Again Georgia was honored by having one of its pediatricians elected to the deanship. This intensive two weeks' post-graduate course, in practical pediatrics, is spreading wholesome knowledge throughout the South. That it is filling a distinct need, and is fully appreciated, is attested by the fact that ninety-five physicians from all parts of the South took course last month.

It should be pleasing to the physicians of Georgia to know that the Medical Association of Georgia, through its members, has contributed in no little measure to the present development of southern pediatrics. Also, that the babe of 1916, born in Atlanta, has now grown into giant-like proportions and strength, and promises to increase its sphere of usefulness in the southern field of infants and child welfare.

MULHERIN.

CAMPAIGN 1927-8

The Georgia Pediatric Society during its short existence has already proven the value of its propaganda, both in the field of preventive medicine and also in the better care of the sick child. In Atlanta alone the inauguration of certified milk has meant that we will have less digestive disturbances and healthier children. We hope to put on a campaign of this sort throughout Georgia in the coming year. However, this year our efforts will be directed mainly toward the eradication of diphtheria and small-pox. Toxin anti-toxin has been proven not only safe but also a medicine which is positive in the prevention of diphtheria in practically ninety-five per cent of those who are injected. Why so many children are not immunized I do not know, except that I feel that the medical profession has not awakened to the fact that it is our duty to protect the health of our community. Let our slogan be "No Diphtheria in Georgia by 1930".

The second matter that I wish to speak about is early vaccination for the prevention of small-pox. It is a known fact that if our Board of Education would not require a certificate of successful vaccination, then one-half of the children would never be vaccinated. But even at that there are too many deaths from small-pox reported yearly; besides the number that remain disfigured for life is tremendous. Children may be safely vaccinated for small-pox at three months of age, and the physician should through personal and public efforts educate the public so that there would be no reason for a single case of small-pox to be reported next year in Georgia. The Georgia Pediatric Society is willing

to help the medical profession in general in a campaign toward the development of better babies; but especially during the coming year in the eradication of diphtheria and small-pox.

YAMPOLSKY.

THE GEORGIA PEDIATRIC SOCIETY ITS AIMS AND PURPOSES

The Georgia Pediatric Society was organized on April 18, 1918, in Savannah, Georgia. This was during the annual meeting of the Medical Association of Georgia. The late Dr. L. B. Clarke, who was largely responsible for this organization, was its first president, and was re-elected to that office the following year. Those eligible to its membership are members in good standing in the state association who are interested in pediatrics and in child welfare in general. The main objects of this organization are:

1st. Self-information in all matters pertaining to pediatrics.

2nd. Passing on this information to the medical profession of the state so that they will become more interested in pediatrics and help us to

3rd. Educate the laity along lines which will lead to the prevention and lowering of infant morbidity and mortality.

As the greater majority of infants and children are handled by the general practitioners, this organization depends largely upon them to carry out its aims and purposes, and they in turn should also profit. Due to the courteous co-operation of the program committee, the presidents and secretary of our State Medical Society, we are enabled to have all papers on pediatric subjects read at the state meetings to be placed on the program in rotation as a symposium. This has in the past been at the afternoon session on the first day of the meeting. This arrangement is obviously superior to conducting a separate pediatric section as it gives all members of the state society an opportunity to attend this symposium without having to miss other papers which might be read at a conflicting time.

We of the medical profession are self-appointed guardians of the public's health. We are the only profession or trade who seek to destroy our own livelihood. While unsought and unsolicited advice and council are seldom appreciated it still remains our sacred duty to protect our fellow man so that we may seek to increase his well being and longevity.

This is an increasing era of preventive medicine. As the strength of the structure lies chiefly in its foundation, it obviously follows that by far the most important branch of preventive medicine is, and our best results are obtained in childhood, which should begin in the prenatal period.

The Georgia Pediatric Society seeks to create more interest in pediatrics by encouraging the members of the county and district societies, reading and discussing more papers on pediatric subjects. To encourage these members to educate the laity along lines of preventive measures, particularly in communicable diseases; to encourage the parents to vaccinate their babies early in life against small-pox, diphtheria, typhoid fever, etc.

All members of the state organization are cordially invited and urged to join the ranks of the Georgia Pediatric Society to participate in its worthy aims and purposes; to attend the pediatric symposiums and to enter freely and frankly into discussions of the scientific program. We who are classed as pediatricians fully realize that one of our most valuable sources of increased knowledge comes from our most worthy confrere, the general practitioner.

ADKINS.

MENTAL HYGIENE

"Any generation fit to do its work must work for the future, for the people of the future, as well as for itself."

Theodore Roosevelt.

The hygiene of a child's mind is equally as important as the hygiene of its body, and the neglect of either one is often the cause of failure to bring children to a happy and successful maturity. There is nothing "high flown" about mental hygiene nor is good mental health any more of a "God-given faculty"

than is good physical health. They are both medical problems and can only be obtained by adherence to the rules formulated by the medical profession. The more intelligent public are beginning to realize that parents do not become endowed with an innate knowledge of training children coincidentally with the birth of the child, and are aware that the future success, failure, or conduct of their offspring depend upon their mental health and early training, therefore, they are looking to the physician rather than the clergy for guidance.

Unfortunately, however, the majority of the public are not particularly intelligent, and are still trying to correct faulty habits and disorders of conduct or personality by resorting to prayer or the rod, and when this fails, as it always does, they either assume an air of fatalism or else "alibi" their mistakes by hiding behind the great cloak of inheritance. Some even hold the belief that the child will outgrow their psychic infections and contagions without any guidance or treatment whatsoever. This, of course, explains why the diversity of homes and methods of training can be told by the diversities of character, habits and conduct shown by the children. The young child is very plastic, imitative, suggestible, and prone to form habits, good or bad, and many insurmountable difficulties of adult life might have been avoided had the early training been different. Failure to appreciate very small points may cause unnecessary suffering and many puzzling ills of childhood can be traced either directly or indirectly to this lack of appreciation. The leading pediatricians are taking the personality of the child, its conduct, emotional disorders and environment as seriously as they take the nutritive and infectious disorders and are looking to the psychiatrist for advice.

Truitt very aptly states that "psychiatry has made great advances in identifying the field of child training and guidance as its natural territory, but its control will not be assured until the whole profession recognize the content of this specialty, and joins the psychiatrist in fighting for a truly medical scientific approach to problems on which every layman thinks himself an expert."

OWENBY

PROCEEDINGS OF THE GENERAL MEETING

(Continued from page 322)

pense of a great deal of time and consumed a great deal of time in making these visits to the county and district societies, and that under his regime the membership has increased, I therefore move that this Association give a rising vote of thanks (Motion seconded and carried.)

The President: Gentlemen, I thank you.

I shall appoint Dr. Daney and Dr. Miller to help act as tellers with the ex-Presidents.

The ex-Presidents who acted as tellers were Drs. M. A. Clark, J. O. Elrod, E. E. Murphey, and E. T. Coleman, Graymont.

The following officers were then balloted upon and declared duly elected to their respective offices:

President: William A. Mulherin, Augusta.

1st Vice-President: H. M. Fullilove, Athens.

2nd Vice-President: Cleveland Thompson, Millen.

Delegate to A. M. A.: Allen H. Bunee, Atlanta.

Alternate to A. M. A.: W. R. Daney, Savannah.

Councilors:

First District: W. H. Myers, Savannah.

Second District: C. K. Sharpe, Arlington.

Third District: G. Y. Moore, Cuthbert.

Fourth District: O. W. Roberts, Carrollton.

Selection of Meeting Place:

An invitation was received from the city of Savannah to hold the 1928 meeting there. It was moved and seconded that the invitation be accepted. Motion carried.

President Harvard declared Savannah to be the next meeting place.

The President: I will ask Dr. Daney and Dr. Miller to escort the newly elected president to the stage.

Dr. Mulherin: I am very glad of the opportunity to thank you for the very great favor you have conferred upon me and while I do not feel fully deserving of it, I want to show you that I value it for I think that the election as president of the Medical Association of Georgia is the highest honor that can be conferred upon a Georgia physician. In stating that I do not except the National honors or the Southern Medical Association. I would like to show you that I shall do my best to make a good president by being faithful to my task.

The President then asked Dr. Selman and Dr. McCurry to escort Dr. Fullilove to the stage.

Dr. Fullilove: I want to thank you for the honor conferred upon me. I assure you I will do all I can to help the President and the Association.

The President then asked Dr. Myers and Dr. Moore to escort Dr. Cleveland Thompson to the stage.

Dr. Thompson: The only office in the Medical Association of Georgia connected with the profession that I have ever aspired was to be president of my own district medical society. I still think that is the highest honor in the Medical Association of Georgia. I have had that honor and I assure you that I did not aspire to a higher honor because I considered that the highest. The position I do prefer would be this, to be a member of the Medical Association of Georgia, to attend and enjoy the benefits of the Association and after the meeting is over to rise and offer a resolution that the Medical Association of Georgia give its officers a rising vote of thanks, then to go home and come back the next year and do the same thing. However, I am willing to do anything the Association finds for me to do to help the organization.

Dr. Redfearn: I move a rising vote of thanks to the Clark County Medical Society and to the city of Athens for their hospitality. (Motion seconded and carried.)

On motion, the Association adjourned at 1:15 P.M. *sine die*.

ALLEN H. BUNEE, M.D.,
Secretary-Treasurer.

IMPORTANT ANNOUNCEMENTS

Southern Medical Association. The next annual session of the Southern Medical Association will be held in Memphis, Tenn., November 14 to 17, 1927. Judging by advance information this will be the largest meeting and the most valuable from a scientific standpoint of any meeting of this Association. The Medical Association of Georgia will be well and ably represented on the program. A record breaking attendance from Georgia is expected.

The Calhoun Lectureship. A gratifying response is being received to the movement initiated by Dr. James E. Paullin to establish a lectureship in honor of the late Abner W. Calhoun. The income from this fund will be used to secure an able teacher to deliver a lecture before the annual sessions of the Medical Association of Georgia. Checks for this fund should be forwarded to Dr. Frank K. Boland, Treasurer, Doctors' Building, Atlanta.

The Crawford W. Long Prize Essay. The gold medal will be presented to that member of the Association presenting a report of the best original research work at each annual session of the Association. Dr. W. R. Daney of Savannah is Chairman of the Committee to select the recipient and will present the medal to the winner.

Georgia State Association of Graduate Nurses

OFFICERS

President.....Miss Lucy M. Hall, R.N. 522 East 40th St., Savannah, Ga.	2nd Vice-President.....Miss Mae E. Burges, R.N. 1108 East Henry St., Savannah, Ga.
1st Vice-President.....Miss Margaret E. Dorn, R.N. 1117 Telfair St., Augusta, Ga.	Secretary.....Mrs. Alma E. Albrecht, R.N. Georgia Infirmary, Savannah, Ga.
Treasurer.....Miss Jane VanDeVrede, R.N. 105 Forrest Ave., N.E., Atlanta, Ga.	

SERVICE TO ALL

Upon the well conducted registry may depend the future of professional nursing, and particularly the future of private duty nursing.

The last nursing census discloses the fact that there are 305,000 nurses in the United States, of whom approximately 200,000 are from so-called recognized schools of nursing. Of this 305,000, approximately 80% are private duty nurses, and it is estimated that this number should adequately care for the needs of our civilian population.

Yet there is a continuous cry regarding a shortage of nursing service in the small towns and rural communities in practically every state in the union. Statistics indicate no shortage of nursing service in the cities. In fact, many nurses in cities spend as much as twenty-five per cent, or more, of their time waiting for calls which do not materialize, when at the same time there is a loud call from unorganized fields, of which they either do not know, are not equipped to serve or refuse to go to.

How can this problem be met? How can distribution be equalized? What is the solution?

Registries, skillfully managed by competent nurses, would appear to go a long way towards solving this great problem, and if this is correct, is not the time ripe for making a diligent, concerted effort to organize registries or central directories in many of our communities not now provided with these clearing houses?

A properly organized registry, with a high type, socially minded nurse in charge, should be able to do much to encourage nurses to remain in the small cities and towns, and in making nursing service as attractive as that

offered in cities.

It is all too true that nurses like many other professional people crowd into the big centers, under the impression that greater opportunities are presented, and that living and recreational conditions are more favorable.

Doctors, too, are attracted in greater numbers to the cities than to the small towns and rural districts. As a matter of fact, very frequently much greater opportunity to serve awaits both the doctor and the nurse in the small city or town. Is it not possible for all who are interested in this question to help make living and service so attractive in our small towns that doctors and nurses will be drawn to them?

Cannot hospitals in small towns influence nurses trained in them to remain in the small cities and towns, where they are best known and thoroughly familiar with all conditions, rather than crowd into the cities which are already filled to overflowing with nurses, many of whom are unable to serve much more than sixty per cent of their time?

This would seem to be a better procedure than for nurses trained in large hospitals, in big centers, to attempt to orient themselves in places and under conditions with which they are thoroughly unacquainted.

The people can be abundantly supplied with nursing service if the question of distribution can be satisfactorily adjusted, though another phase of the matter is that frequently patients cannot pay for the service to be secured.

The importance of central registries in attacking the whole problem cannot be overestimated. Through the registry all classes of nursing service may be dispensed. Such registries should have the hearty support of communities, and particularly of doctors and in-

dividuals who readily understand the benefits and responsibilities of these institutions.

Here the registered nurse may find private duty, institutional or public service work, as well as hourly nursing; the nursing aid or practical nurse may be kept busy in the line for which she is really suited, as well as the undergraduate nurse, at a fee appropriate to her talents and experience. A card stating the qualifications and salary of the applicant can be provided by the registry to patients, thus safeguarding the public and the nurse against abuses arising from the demand for high salaries by unqualified persons. In at least one state such a provision has become law. This law is not only in the interest of the public, but of the physician, who has assumed responsibility in advising or insisting upon nursing care.

An ethically conducted registry can also do much toward supervising the work of nurses and to improve the morale of the profession. The private duty nurse, upon graduation, faces the responsibility of unsupervised work. Her work is not organized except as it relates to her co-operation with the doctor, and she finds herself a lone worker, with little opportunity for professional comradeship, exchange of ideas or the stimulus that teamwork brings. Each nurse deals individually with patients, and the problems of this lone worker are so many that it is small wonder she appears to be deserting this profession for other fields, or refusing to accept service in out-of-way places where there are no outside contacts when her long day of nursing has ended.

Under our present methods, the loss to the nurse is quite as great as the cost of nursing service is to the patient, who feels he pays heavily. This loss is chargeable to a long day which tends to break down the health and spirit of the nurse; to irregular hours, precluding any opportunity for further study, participation in community affairs or recreation, as well as to the uncertainty of work. The monotony of idle hours on duty, of being on hand twelve hours while her patient needs perhaps but six, is demoralizing.

While she is charged frequently with being mercenary, figures prove that the private duty nurse's income is little above that of unskilled labor, averaging little more than 49c an hour.

Too little is known about the hours, days or weeks she must spend in uncertain idleness, waiting for the telephone's call to duty!

What is responsible for a situation so costly to all participants? Bad distribution is pointed out as very largely the cause of this uneconomical use of nursing service. Better distribution, then, must become the slogan.

Through the registry we can hope to find the medium for this better distribution. The registry can and should be alert to changing requirements of communities; responsible for satisfactory nursing service and conditions. Nurses who have become careless in performance of their duties can be discovered and dealt with.

Opportunities of the registry for helping the nurse and the public, not to speak of the aid to be given the doctor, appear unlimited. While perhaps in most instances doctors are fully appreciative of the central registry, yet it is significant that many others are not aware of its value and possibilities.

An advisory committee of doctors and representative lay people can mean much to the registry, which in many communities has made slow progress because of its apparent aloofness, or because of its failure perhaps to recognize the need of full co-operation on the part of physicians and members of the community.

The registry should prove that the welfare of the people, and skilled service or aid to doctors, is as much or more a part of its program and responsibility as any benefits to be derived by nurses.

Registries can be operated at a minimum cost, and should be the ideal source of supply for nursing service of whatever type may be required by doctors and patients. In times of emergency, they are invaluable.

Just here it is perhaps appropriate to say a word regarding unethical or commercial registries, which usually operate on a percentage basis. The amount overcharged by some of these registries will never be known, but through these institutions the whole nursing profession is stigmatized. Doctors as well as nurses should discourage the commercial registry, which is not animated by altruistic motives nor run usually according to standards.

In the future a new scheme of nursing education may be evolved, but meanwhile, we cannot wait to serve our people. May we not use the "machinery" at hand, bringing together the economic need of the patient and the skilled intelligence of the nurse through the registry?

Each District of the State Nurses' Association will do well to make this a part of its program of study and service, encouraging the formation of registries in as many communities as is consistent or possible, for to the registries must we look for needed help regarding equitable distribution and successful nursing service!

Appreciation

Of the several hundred Bills passed by the 1927 General Assembly of Georgia, and signed by the Governor, several are of interest to doctors and nurses; but perhaps none affect them more practically than the Nurses' Bill, which was in the nature of a repeal of the former Nursing Act providing for permissive registration of graduate nurses only.

The new law provides for compulsory and annual re-registration of both graduate and undergraduate nurses. The Bill was not passed until the last session of the House, and was at the very last moment in danger of being lost by a motion to table the measure. However, this motion did not carry and the Bill was finally passed.

To the doctors throughout the state who recommended the passage of the Bill to the Legislators of their Districts and Counties the nurses are very grateful. Dr. W. K. Smith of Bryan County spoke in favor of the Bill on the floor of the House, and undoubtedly aided in its passage.

We are confident that a better and more satisfying service to the doctors in the interest of the sick will result from this legislation.

Registration

All graduate and undergraduate nurses who are not registered should immediately apply for registration while the waiver is in effect.

Regional Conference on Social Hygiene

Of interest to doctors and nurses is the Regional Social Hygiene Conference to be held in Kansas City, Missouri, October 10 to 12, in co-operation with the Kansas City Health Conservation Association, the Kansas

City Social Hygiene Society, and thirty other health and social organizations.

The growing importance of social hygiene in the daily routine of social and other workers is becoming too well known to need special mention, and its relation to state boards of health, health officers, nurses and others is recognized.

Kansas City is conveniently situated for a national conference, and a large attendance is expected, particularly from the middle west, southwest and southeast. It is hoped a good representation will go from Georgia and other Southern States.

A program replete with practical aid on problems which confront educators, physicians, nurses and other leaders of groups interested and dealing with home and community social hygiene, has been arranged, and authoritative speakers on subjects of general interest will be provided, as well as round tables on technical questions. Interesting exhibits, including the medical exhibit which attracted so much attention at the meeting of the American Medical Association at Washington, in May of this year, will be shown.

Detailed information may be secured from the Kansas City Society or the National Social Hygiene Association, Inc., 372-374 Broadway, Albany, N. Y.

HYPODERMOCLYSIS

AUGUSTUS HARRIS, M.D., F.A.C.S.
Brooklyn, N. Y.

The importance of hypodermoclysis treatment, and its field of usefulness in medical, and particularly surgical work can scarcely be overestimated. It may often be a life-saving procedure. This applies especially in urologic surgery. Owing to frequent difficulty of administration with the usual equipment now in use for this treatment, the writer has been stimulated to devise a new set.

The set herewith presented is simple, efficient, and overcomes all the disadvantages of those hitherto employed. It is adapted to both subcutaneous and intravenous use; in fact, it may be used for intravenous salvarsan, glucose, or citrate transfusions.

The apparatus consists of a graduated Kelly infusion jar, with pointed end, 1000 cc., the proper lengths of rubber tubing to make connection, two stopcocks, two Luer Lok adapters, two Yale needles 19 gauge 2½", one glass T Tube and one glass observation tube.

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District and County Societies

District Editors

- | | |
|---------------------------------|--------------------------------|
| 1. Long, W. V., Savannah. | 7. McCord, M. M., Rome. |
| 2. Watt, C. H., Thomasville. | 8. Carter, D. M., Madison. |
| 3. Greer, Chas. A., Oglethorpe. | 9. Bennett, J. C., Jefferson. |
| 4. Peniston, Joe B., Newnan. | 10. Lee, F., Lansing, Augusta. |
| 5. Fitts, Jno. B., Atlanta. | 11. W. F. Reavis, Waycross. |
| 6. Thompson, O. R., Macon. | 12. Cheek, O. H., Dublin. |

1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.
2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926.
3. Dougherty County, Dr. I. M. Lucas, Albany, Dec. 15, 1926.
4. Chattooga County, Dr. W. B. Hair, Summerville, Dec. 16, 1926.
5. Macon County, Dr. F. M. Mullino, Montezuma, Dec. 30, 1926.
6. Lamar County, Dr. Jno. M. Anderson, Barnesville, January 6, 1927.
7. Turner County, Dr. J. H. Baxter, Ashburn, January 13, 1927.
8. Pike County, Dr. M. M. Head, Zebulon, January 25, 1927.
9. Rabun County, Dr. J. A. Green, Clayton, January 27, 1927.

10. Murray County, Dr. E. H. Dickie, Chatsworth, January 27, 1927.
11. Taylor County, Dr. J. C. Hind, Reynolds, January 29, 1927.
12. Jasper County, Dr. E. M. Laneaster, Shady Dale, February 9, 1927.
13. Terrell County, Dr. Logan Thomas, Dawson, February 24, 1927.
14. Butts County, Dr. J. Lee Byron, Jackson, March 30, 1927.
15. Franklin County, Dr. Stewart D. Brown, Royston, April 11, 1927.
16. Ware County, Dr. K. McCullough, Waycross, April 12, 1927.
17. Wayne County, Dr. M. N. Stow, Jesup, April 12, 1927.
18. Stephens County, Dr. C. L. Ayers, Toccoa, April 18, 1927.

EIGHTH DISTRICT MEDICAL ASSOCIATION

The annual meeting of the Eighth District Medical Association was held at Elberton August 10th with the following program:

Invocation: Rev. J. H. Mashburn.

Address of Welcome on behalf of the City of Elberton: Prof. B. M. Grier.

Address of Welcome on behalf of the Elberton County Medical Society: Dr. A. S. J. Stovall.

Response to Addresses of Welcome: Dr. John A. Hunnicutt, Jr., Athens.

Address by Dr. William A. Mulherin, President, Medical Association of Georgia: Medical Organization and Policies.

Modern Management of Pneumonia with Report of Fourteen Cases: Dr. H. I. Reynolds, Athens.

Huge Osteoma of the Pelvis: Dr. H. W. Birdsong, Athens.

Rheumatic Heart: Dr. Stewart R. Roberts, Atlanta.

Diagnosis and Treatment of Pernicious Anemia: Dr. Allen H. Bune, Atlanta.

Dr. Stovall being absent in attendance upon the Legislature as Representative from Elbert

County, his period was occupied by Dr. Paul Eaton of Augusta who treated the assembly to a delightfully witty and entertaining address.

The papers presented were of the highest order and were models of thoroughness in their preparation. All the papers were freely discussed by members and visiting physicians.

The meeting was greatly enlivened by the presence of many visiting physicians from Augusta, Atlanta, Commerce and Jefferson and from Anderson and Greenville, S. C.

A Barbecue Luncheon was served at the City Park at 1 o'clock and fully sustained the reputation of the far-famed Georgia Barbecue.

The meeting was presided over by President, Dr. B. C. Teasley of Hartwell.

Officers elected for 1928 are:

President: Dr. J. E. Johnson, Elberton.

Vice-President: Dr. H. I. Reynolds, Athens.

Secretary-Treasurer: Dr. D. M. Carter, Madison.

Dr. Stewart D. Brown, Royston, was unanimously nominated for Councillor for 1928.

The 1928 meeting will be held at Madison on the second Wednesday in August.

DAN M. CARTER, M.D.,

Secretary.

NEWS ITEMS

The Fourth District Medical Association will hold its annual meeting for 1928 at Columbus.

The Georgia Medical Society, composed of physicians in Savannah and Chatham County, was host to the First District Medical Society at a luncheon and entertainment at Tybee on July 27.

Dr. H. J. Copeland has located at Griffin and associated with Drs. K. S. Hunt and C. F. Griffith after serving as an interne and resident surgeon in New York and Jersey City for almost three years. He is a graduate of Emory University School of Medicine.

Dr. Frank Wells, Atlanta, was elected recently as a member of the Fulton County Board of Health for a term of four years.

Dr. A. C. Primrose, Americus, attended the Southern Pediatric Seminar at Saluda, North Carolina.

The Terrell County Medical Society held its regular monthly meeting at the office of Dr. J. H. Lewis, Dawson, July 29.

The Eighth District Medical Association held its summer meeting at Elberton, August 10.

Dr. T. H. Johnson has been elected Commissioner of Health for Coffee County.

Dr. W. B. Hair, Summerville, and Dr. H. C. Hardin, Trion, have purchased the Summerville Inn, will remodel and install laboratory and X-ray machine and operate as a hospital. They have secured the services of Dr. N. A. Funderburk, formerly of Chattanooga, Tennessee, and Dr. W. A. Kelley, a graduate of Emory University School of Medicine and an interne at Grady Hospital for the past two years.

Dr. Frank Bird, Valdosta, has been elected chairman of the Valdosta Board of Health.

Dr. E. C. Watkins, Brooklet, attended the Southern Pediatric Seminar at Saluda, North Carolina.

Dr. T. H. Green, a graduate of Emory University School of Medicine and formerly of Lakeland, Florida, has removed to Waycross and opened offices in the Bunn Building.

Dr. C. I. Bryans, Augusta, has returned from an extended trip to Europe after taking post-graduate work at Vienna in the treatment of diseases of the eye, ear, nose and throat.

Dr. Monroe J. Epting has opened offices at 7 West Gordon Street, Savannah, for the practice of surgery. He is a graduate of the University of Virginia.

Dr. H. M. Moore and Dr. C. K. Wall, Thomasville, attended the training camp for Medical Officers at Fort Oglethorpe.

The Commissioner of Health for Brooks County in an effort to locate breeding places for mosquitoes in Quitman examined twenty-eight old wells and found that twenty-two were breeding places for them.

Dr. Wm. C. McCarver, Vidette, held a free pre-school clinic on August 10, assisted by the county nurse and members of the Woman's Club.

Dr. H. L. Erwin, Dalton, was a member of the Inter-State Post-Graduate Assembly of North America during the summer months. The trip took him to London, Edinburgh, Oslo, Stockholm, Copenhagen, Hamburg, Leipzig, Munich, Strasbourgh, and other intermediate points.

At the Eighth District Medical Association meeting held at Elberton, August 10th, the following scientific papers were read: "Modern Management of Pneumonia" by Dr. H. I. Reynolds, Athens; "Huge Osteoma of the Pelvis" by Dr. H. W. Birdsong, Athens; "Rheumatic Heart" by Dr. Stewart R. Roberts, Atlanta; "Diagnosis and Treatment of Pernicious Anemia" by Dr. Allen H. Bunce, Atlanta.

The Fourth District Medical Association held its annual meeting at West Point on August 3. The following papers were read: "Some Obstetrical Complications" by J. M. Poer, M.D., West Point; "Cancerous and Pre-Cancerous Conditions of the Breast" by W. A. Selman, M.D., Atlanta; "Acute Abdomen in Women" by Hugh McCullough, Jr., M.D., West Point; "Report of Some Interesting Cases" by M. F. Cochran, M.D., Newnan; "Puerperal Eclampsia" by H. J. Goodwyn, M.D., Carrollton; "The Treatment of Non-Diphtheritic Membranous Ulcers of the Mouth and Throat" by F. B. Blackmar, M.D., Columbus; "The Acute Abdomen" by W. L. Cook, M.D., Columbus; "Treatment of Chronic Constipation with X-ray Observation" by Enoch Callaway, M.D., LaGrange; "Report of Cases" by A. A. Barge, M.D., Newman; "Chronic Gastric and Duodenal Ulcer" by G. C. Mizell, M.D. and W. C. Waters, Jr., M.D., Atlanta; "Medical Organization" by W. A. Mulherin, M.D., Augusta, President of the Association; "Some Points on Removal of Foreign Bodies" by O. W. Roberts, M.D., Carrollton.

The Hall-Chaudron Hospital and Training School for Nurses, Cedartown, held its graduating exercises on August 18th at St. James Episcopal church.

The American College of Surgeons will hold the seventeenth Clinical Congress in Detroit, October 3-7. Headquarters will be at the Book-Cadillac and Statler hotels, and the meetings will be held at the Statler Hotel, and Orchestra Hall. The Hospital Standardization Conference will extend from Monday morning to Thursday afternoon and will include a discussion of hospital and nursing problems and hospital demonstrations.

The Tenth District Medical Society held its semi-annual meeting at Augusta on August 24th. The following scientific papers were read: "Importance of Correlating Etiology, Pathology and Function in Cardiac Diseases" by E. C. Thrash, Atlanta; "Benign Structures of the Esophagus" by Chas. C. Harrold, Macon; "New Obstetrical Procedures" by Lewis H. Wright, Augusta; "Food as a Factor in Preventative Medicine" by William Weston, Columbia, S. C.; "Medical Organization" by W. A. Mulherin, Augusta, President of the Association; "Diagnosis and Treatment of Pernicious Anemia" by Allen H. Bunce, Atlanta; "The Value of Metabolic Chemistry to the Surgeon" by Jno. W. Daniel, Savannah.

The Ware County Medical Society held free preschool clinics each Friday afternoon during August and made a thorough physical examination of each child. Drs. Kenneth McCullough, H. J. Carswell and George E. Atwood were in charge.

Dr. A. C. Colson, formerly of Deerfield, Florida, has removed to Lakeland, Georgia, and will continue the practice of medicine, associated with Dr. Lewis Smith.

The Southern Medical Association will hold its next annual session at Memphis, Tennessee, November 14 to 17.

BOOK REVIEW

Mineral Waters of the United States and American Spas by William Edward Fitch, M.D. Published by Lea & Febiger, 600 S. Washington Square, Philadelphia, Pa.

The object of this book is to awaken the medical profession to a realization of the importance of our mineral water resources, their great therapeutic value in the treatment of chronic diseases and to encourage a more thorough understanding of the subject of medical hydrology.

The more popular resorts and celebrated spas receive elaborate description, particularly the bathing establishments and their scientific equipment, with a clear depiction of the therapeutic usefulness

of the special baths administered and the clinical uses to which they are adapted.

The discovery of radium emanation in mineral waters is of such momentous importance that a chapter on radio-activity of mineral waters has been included.

The chapter on Georgia should especially appeal to us. There are 55 spring localities in Georgia with a total of 290 individual springs, the majority of which have recently been analyzed by the State Geological Survey. A number are used as resorts, while others are commercially used. The mineral springs, as is brought out in this chapter, are of considerable importance. A description of each spring follows this chapter.

From a historical, medical and scientific point of view this book is valuable in the physician's library.

TOEPEL.

BOOKS RECEIVED

Clinical Physiology (A Symptom Analysis) in Relation to Modern Diagnosis and Treatment, a text for practitioners and senior students of medicine by Robert John Stewart McDowall, D.Sc., M.B., F.R.C.P., Professor of Physiology, King's College, University of London, with an introduction by W. D. Halliburton, LL.D., F.R.C.P., F.R.S., Emeritus Professor of Physiology, King's College, University of London. Contains 383 pages. Publishers: D. Appleton and Company, 35 West 32d Street, New York City.

The Fifth Avenue Hospital Clinics, First Series, Based on the Material from the Semi-Monthly Staff Meetings. Editorial Board: Joseph H. Fobes, M.D.; D. S. D. Jessup, M.D.; Milton J. Raisbeck, M.D.; Charles F. Tenny, M.D. Contains 336 pages, illustrated. Publishers: Paul B. Hoeber, Inc., 76 Fifth Avenue, New York City. Price, Cloth \$5.00.

ATTENTION: MEMBERS OF THE MEDICAL ASSOCIATION OF GEORGIA who expect to attend the meeting of the Interstate Post Graduate Medical Association, Kansas City, Mo., October 17-21, 1927.

Kindly notify Dr. Marion T. Benson, 503 Medical Arts Bldg., Atlanta, for reservation, on special pullman with stop over in St. Louis. Will leave Atlanta Friday, Oct. 14th, 9:00 A.M., arrive Kansas City at 7:30 A.M. Sunday. Clinics begin at 7:00 A.M. Monday. Return home Saturday, Oct. 22nd, 1:30 P.M. Arrive Atlanta Sunday, Oct. 23rd, 6:30 P.M.

Railroad fare from Atlanta to Kansas City, round trip, will be \$48.85, pullman lower \$9.00, upper \$7.20. This trip can be made complete for \$110.00-\$115.00 per person.

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Each patient receives the maximum of individual attention. Treatment for alcoholics is one of gradual reduction and elimination, which destroys the craving for alcohol. Our drug treatment which builds the patient up physically while being reduced, restores their appetite and sleep without producing any shock to the nervous system.

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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA

PUBLISHED MONTHLY under direction of the Council

Volume XVI

Atlanta, Ga., October, 1927

No. 10

REDUCING OBSTETRICAL MORTALITY*

LEWIS H. WRIGHT, M.D.
Augusta

Great progress has been made in many lines of preventive medicine during the last few years. Obstetrics has had its part in this progress. Unfortunately not all persons practicing obstetrics have put into use the information available for reducing obstetrical mortality. It would be an almost endless task were one to go into exhaustive detail along these lines. Only a few of the more salient points will be mentioned.

Statistical studies show that as a whole the maternal and fetal mortality is not decreasing as it should. In the hands of some specialists and some others it is lessening but as a whole such is not the case.

There are three main factors concerned in the successful handling of an obstetrical case.

1. Faithful, thoughtful, intelligent prenatal care.

2. Proper management during labor.

3. Careful postnatal care and follow-up.

Not one of these factors may be neglected.

Some 20,000 women die every year in the United States of diseases incident to childbirth. Of this number about one-third die of the toxemias of pregnancy, conditions essentially wholly preventable. In other words some 7,000 young women who die of the toxemias of pregnancy could be saved every year in this country. In Georgia more than a hundred women die every year from puerperal toxemias.

Not all of this mortality should be laid at the door of the physician. A goodly number

of patients for one reason and another do not get under the care of a physician until the damage is done. This point can be cared for by better education as to what the doctor can do for the patient to lessen this great toll that women pay for their babies.

In the city of Augusta approximately one per cent of mothers die from diseases incident to childbirth. About one-half of these deaths are from toxemia. In other words roughly one out of every two hundred mothers die from toxemia, an essentially preventable cause. Nearly all of these were patients that had little or no prenatal care.

For the last few years in the University Hospital there has been little eclampsia in staff cases. This is attributed to the fact that more pregnant women (free cases) are availing themselves of the prenatal care from the free clinic. In fact was it not for the outside patients there would not be enough eclampsia for teaching purposes. This shows what can be done even with this type of patient. It is a rare thing to have eclampsia develop in a patient that has been attending the clinic regularly. Occasionally it develops in one that has been a very irregular attendant.

Proper prenatal care reduces the number of weak toxic premature infants and stillborn babies. Even considering the induced labors for toxemias it lessens the whole number of little weak babies.

Blood for Wasserman tests should be taken on all patients routinely. If there is evidence of lues as vigorous treatment as the patients general condition will stand should be instituted.

One should not get the idea that prenatal care is a panacea for all obstetrical ills. Prenatal care means intelligent medical supervision of the pregnant woman. It will not prevent all of the obstetrical emergencies. Good obstetrics cannot be done without it. It

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

may be said that the quality of the obstetrics done depends on the quality of the prenatal care.

The following outline for the use of Physicians on "Standards of Prenatal Care," approved by the Joint Committee on Maternal Welfare of the American Gynecological Society, American Association of Obstetricians, Gynecologists and Abdominal surgeons, and American Child Health Association, gives about the minimum care that any pregnant woman should have:

Prenatal care is that part of the maternal care which has as its object the complete supervision of the pregnant woman in order to preserve the happiness, health, and life of the mother and child. Therefore all pregnant women should be under medical supervision during their entire pregnancy, for it is only by careful routine prenatal care that pregnancy and labor can be made safer.

I. The physician at the first visit should obtain the following data and record the facts:

A. Patient's past history—

1. Diseases. Question particularly as to the following:
 - (a) Tuberculosis or exposure to tuberculosis.
 - (b) Scarlet fever.
 - (c) Tonsillitis.
 - (d) Rheumatism.
 - (e) Diphtheria.
2. Surgical conditions and accidents, especially abdominal and pelvic operations.
3. Menstrual history-cycle, amount of flow, duration and pain.

B. Character of previous pregnancies and labors. Secure the following data of previous pregnancies in chronological order:

1. Date of termination.
2. Period of gestation.
3. Complications during pregnancy.
4. Labor.
 - (a) Onset, spontaneous or induced.
 - (b) Character.
 - (c) Duration.
 - (d) Termination of labor.

Spontaneous or artificial.

If artificial, what method.

(e) Other complications.

5. Puerperium.

(a) Infection.

(b) Hemorrhage.

(c) Operations following.

6. The newborn.

(a) Alive or dead at birth.

(b) If dead, macerated..

(c) Premature or term.

(d) Breast fed, yes or no. Duration.

(e) Baby alive now? If dead, cause of death.

C. Present pregnancy.

1. Date of last menstruation and character thereof.
2. Nausea and vomiting and quickening.
3. Estimation of date of delivery.

II. Then proceed to—

A. Physical examination.

1. Taking and recording of the systolic and diastolic blood pressure, temperature (preferably P. M.), pulse, and weight.
2. Skin, nutrition, head, mouth, neck, chest, heart, lungs, breasts, extremities.
3. Abdominal examination, palpation, auscultation, mensuration.
4. Vaginal examination. No vaginal examination during the last month of normal gestation without strict aseptic precautions. Rectal examination may be substituted.
 - (a) The necessity of a vaginal or rectal examination is insisted upon—
 1. To determine the existence of a pregnancy.
 2. To determine the position of the uterus.
 3. To discover any pelvic tumor.
 4. To determine the presence of venereal disease, and if suspected to take smears.
 5. Speculum examination of the cervix and vagina is advised in early pregnancy if indicated.

- (b) In the presence of vaginal bleeding at any period of gestation only rectal or aseptic vaginal examination should be made.

6. Pelvic measurements.

- (a) Intererystal.
- (b) Interspinous.
- (c) External conjugate.
- (d) Diagonal conjugate.
- (e) Transverse diameter of outlet.
- (f) Palpation of pelvic contours, promontory, sacrum, coccyx, ischial spines, arch, tuberosities.

7. Taking of blood for Wasserman.

8. Urinalysis.

Specific gravity. Albumen. Sugar.

A microscopic examination of the sediment is advisable as a matter of routine, and it is a necessity if albumen is present. If there is any evidence of trouble a 24-hour specimen should be secured.

III. If pregnancy is determined, then give minute instructions to the patient in the hygiene of pregnancy.

- A. Diet.
- B. Exercise, rest, sleep, recreation.
- C. Clothing, including shoes.
- D. Baths and care of skin.
- E. Care of bowels.
- F. Care of kidneys.
- G. Care of teeth.
- H. Care of breasts.
- I. Intercourse during pregnancy.
- J. Maternal impressions.
- K. Hygiene of the home and preparation for home delivery.
- L. Mental hygiene.

Patient should be examined by a physician at least once a month during the first six months, then every two weeks or oftener as indicated, preferably every week in the last four weeks. A properly qualified nurse working in conjunction with a physician may assist in the observation of the patient. At each visit to the physician the patients general condition must be investigated, blood pressure taken and recorded, urinalysis done, pulse and temperature recorded,

External pelvimetry is only suggestive. It alone does not determine whether or

not any disproportion is present. Abdominal examination should be made at each visit and the height of the fundus determined at this examination. Abdominal palpation in the eighth and ninth months will show whether or not there is any obvious disproportion between the head and the pelvis. Malpositions can be determined and may be corrected. Further information as regards descent and fixation can be determined by rectal examination.

In a primigravida, if the presenting part two weeks before the estimated date of delivery is not well in the pelvis, the physician in charge should determine, so far as is possible, whether any disproportion between the pelvis and baby exists. If a disproportion is diagnosed in any case special care should be taken to avoid vaginal examinations immediately prior to or after the onset of labor. This precaution is wise because of the danger of serious infection should operative procedures later become necessary.

Every patient requires careful individual study. If the prospective labor offers a probable chance of being a difficult one, the patient should be sent to a well equipped hospital for delivery.

Pregnancy is a physiologic condition, but there is no condition which may become pathologic more quickly. It is therefore necessary to instruct each patient at her first visit to report at once to the family physician anything that may affect her wellbeing, especially the following symptoms:

1. Obstinate constipation.
2. Shortness of breath.
3. Acute illnesses, especially colds, sore throat, and persistent cough.
4. Persistent and recurring headache.
5. Recurring nausea and vomiting.
6. Visual disturbances.
7. Dizziness.
8. Pain in the epigastrium.
9. Edema, especially of the face, hands, and ankles.
10. Changes in the urine or type of micturition.
11. Severe pain in the lower abdomen.

12. Vaginal bleeding, even the slightest.

In case of vaginal bleeding or low abdominal pain the patient must be instructed to go to bed at once and to send for her physician. When bleeding from the vagina occurs its source must be determined by examination. When hemorrhage appears imminent the patient, if possible, should be removed to a hospital, but if vaginal examination is necessary it must be done under aseptic precautions. Where a hospital is not available, means must be at hand to control the possible severe bleeding that may arise.

If the patient develops a toxemia in the course of her pregnancy it is only by careful medical supervision and treatment that an eclamptic condition can be prevented. Eclamptic convulsions are in the majority of cases preventable, but only by constant vigilance combined with co-operation between the patient and the physician can the disastrous results which occur throughout the country be diminished.

If the patient is to be delivered by a licensed midwife, she should have the advantage of the same prenatal care to which all prospective mothers are entitled. If there is doubt about the patient having a normal delivery she should be transferred to a doctor or to a hospital.

Only by careful study of each case is it possible to determine whether the patient should be allowed to stay at home or be sent to a hospital. By this individual study the number of vaginal examinations during labor may be cut to the minimum and the terrific toll of death from sepsis much lowered.

It is only by early and repeated examination of the prospective mother that the premature termination of pregnancies, the stillbirths, and many diseases and deaths of the newborn can be reduced. By the same methods the mothers can be spared much distress and disease, and many lives which would be otherwise lost from toxemia, accidents of pregnancy and labor, and infection.

If one will follow this or a similar routine it will lessen their obstetrical deaths, both maternal and fetal. In addition to the above

one should routinely examine primiparas every seven days or more often if indicated. In multipara an aseptic vaginal examination should be made about one month before the estimated date of confinement, special attention being made to the diagnosis of placenta prævia. All patients should have routine ophthalmoscopic examinations. Routine blood examinations, hemoglobin, malaria smears, etc., should be made as indicated.

The second and third dietums must not be neglected though. Here comes the ignorance and errors of judgment. Proper management during labor demands excellent judgment, a knowledge of the mechanism of labor, patience and eternal vigilance. Probably more permanent damage (other than loss of life) is done to the mother by improper management of this period than any of the others. Meddlesome midwifery is a dangerous thing. It oftentimes undoes all and more than the prenatal supervision has done. It is a fertile source of puerperal infection, the greatest dread of the obstetrician.

Delivering babies through an undilated cervix and perineum, and before moulding and rotation have taken place has taken its mortality to say nothing of the morbidity. The judicious use of morphine and other obstetrical anesgesics will usually allow dilatation to take place provided everything is normal. And this is not the time to wonder about that. It should have been found out before.

If proper measurements have been made, both external and internal, there is little likelihood of deformed pelvis presenting themselves at this time. Faulty positions are also considered before this time.

Routine Cæsarian section for eclampsia is the lazy careless man's way of getting out of a thing that he never should have gotten into. Statistics from varying sources show that the maternal mortality from this form of treatment is about double that of the conservative treatment. Relieve the patient of her eclampsia, start her up in labor if necessary and she will very likely have her baby, or at the most, usually the only interference will be a simple low forceps operation. Too many forget future pregnancies in this type of patients. Eclampsia is essentially a medical not a surgical condition and should be so treated.

Puerperal infection causes about one fourth of all maternal deaths as the result of childbirth. The infection comes from some ones dirty hands usually, sad to say but true, often the doctor's. It is one of the obstetrical complications that should be one hundred per cent preventable, but unfortunately it is not. Certainly the mortality can be reduced. Women do get infected that have spontaneous labors. This is rare however. Whenever the normal process of labor is interfered with the danger of infection is markedly increased.

Hemorrhage ranks third in the causes of obstetrical deaths. Some of the deaths from this cause can be prevented. Many cases of placenta prævia can be diagnosed before hemorrhage occurs. Hemorrhage is such a sudden thing that in many cases there is not time to do anything. On the other hand if the patient has been properly advised as to the early manifestations of the condition and the doctor is alert to his duty, much can be done to prevent death from antepartum hemorrhage. Proper conduct of the third stage of labor will do away with nearly all postpartum hemorrhage, i.e., postpartum hemorrhage from the placental site. Do not get in too big a hurry to express the afterbirth. Give it plenty of time to separate.

It sometimes seems as if the puerperium was about the most neglected part of the care of the patient. We often think, when the baby is born all the worry and danger is over, but such is not the case. Many serious complications that have their start earlier manifest themselves at this time, such as puerperal infection and postpartum eclampsia. The former is a tragedy, the latter a disgrace.

The points that I have tried to make here are that if one will give their patients good intelligent prenatal care somewhat along the outline given, with intelligent care during delivery, and during the puerperium the mortality during childbirth will be materially decreased. Of course every now and then there will be a fulminant case of eclampsia, a case of accidental hemorrhage, a placenta prævia will slip up on us, and in spite of every precaution a patient will get infected. My plea is to keep these conditions at a minimum. It can be done. When we consider the terrific toll that mothers pay, even here in

Georgia it gives us some thing to work for.

It is estimated that about 200,000 babies are sacrificed every year in the United States due to the lack of their mothers having proper prenatal care and the proper attention during delivery. This is some price to pay. To bring the subject closer home every year in this state thousands of babies are lost as stillborn or die during the first few days of life.

In conclusion I wish to repeat again the three main factors in reducing the terrific obstetrical mortality in the United States, and in the whole world for that matter. Faithful, thoughtful, intelligent prenatal care with proper management during labor and careful postnatal care and followup. The maternal mortality can be reduced ninety per cent and the fetal mortality more than fifty per cent. This is worth striving for. The mothers of the world more than deserve it.

PROCEEDINGS OF THE HOUSE OF DELEGATES OF THE MEDICAL ASSOCIATION OF GEORGIA

FIRST MEETING
TUESDAY, MAY 10, 1926

The House of Delegates was called to order at the County Court House, Athens, Georgia, at 7:40 P.M. by the President, Dr. V. O. Harvard, Arabi.

Roll Call: The Secretary stated that he held in his hand the signed roll call of thirty-six Delegates and Councillors, and moved that this constitute the roll call for this meeting.

Motion seconded and carried.

The Chairman declared a quorum present and the House duly constituted for the transaction of business.

Those present were:

J. M. Anderson, Lamar County (Vice-Councillor, 6th District).

C. L. Ayers, Councillor Ninth District.

F. K. Boland, Fulton County (Ex-President).

J. N. Brawner, Fulton County.

M. T. Benson, Fulton County.

A. S. M. Coleman, Councillor 11th District.

J. H. Dees, Montgomery County.

W. R. Daucy, Chatham County.

J. G. Dean, Terrell County.

J. W. Daniel, Chatham County.

H. W. Doster, Screven County.

J. O. Elrod, Monroe County (Ex-President).

H. L. Earl, Warren County.

A. G. Fort, Fulton County.

W. C. Hafford, Ware County.
 W. H. Myers, Chatham County.
 R. L. Miller, Burke County.
 W. L. Mathews, Barrow County.
 W. E. Mobley, Bibb County.
 W. A. Mulherin, Richmond County.
 G. Y. Moore, Randolph County.
 J. W. Palmer, Montgomery County.
 E. S. Peacock, Washington County.
 M. E. Perkins, Jenkins County.
 W. H. Perkinson, Cobb County.
 D. S. Reese, Carroll County.
 O. W. Roberts, Councillor 4th District.
 C. W. Roberts, Fulton County.
 C. K. Sharp, Councillor 2nd District.
 D. Y. Sage, Fulton County.
 E. C. Thrash, Councillor 5th District.
 B. C. Teasley, Hart County.
 T. C. Thompson, Councillor 12th District.
 B. T. Wise, Sumter County.
 J. Yampolsky, Fulton County.
 H. D. Youmans, Toombs County.

President Harvard, Secretary Bunce, and Parliamentarian Clark were also present.

REPORT OF OFFICERS

PRESIDENT'S REPORT

Dr. Harvard: After I was elected to the presidency I was invited to the Fulton County Medical Society and then I met with other District Societies during the year. I met with three of them twice. I found the district societies doing good work and the men seemed very enthusiastic. The papers presented were very good and were worthy to be read before the State Association. It has been a most pleasant year for me and I enjoyed the work immensely. I thank you.

PARLIAMENTARIAN'S REPORT

Dr. Clark: In order to serve faithfully as a parliamentarian you must be a very close observer, pay very careful attention to little matters, watch closely and study wisely. In trying to fulfil that duty certain little things have come to my attention which seem to me wise to speak to you about. The parliamentarian is anxious that you have the most perfect deliberative body he has ever heard of.

It is well to recognize that we are a deliberative body. I wonder if you ever stop to think what we mean by a deliberative body. You know deliberative comes from the Latin meaning to weigh well. We deliberate as a body of trained men and then come to a conclusion as to what would be useful. Some of us get enthusiastic and we debate. You know debate used to mean strike down in the time of Chaucer; two men would go into the arena and fight. That was spoken of as a debate. Now as a matter of fact, debate is an exchange of opinions in order that we may weigh well these opinions and come to a conclusion. There must be decorum in our de-

bate. Decorum is a Latin word, meaning becoming or befitting. It is becoming that we should observe certain rules. The first rule in debate is that it should be impersonal. Parliamentary law states that you are not to call the previous speaker by name. The idea is that anything that becomes personal violates the decorum of debate. We are a little bit prone at times to take matters personally. We are so fond of assertiveness that we forget ourselves and become personal. Now I am sorry to say that at times we forget the simple matters. You know them and if you would stop to think you would observe them. In order to obtain the floor you must rise and address the chair. Sometimes some of our ex-presidents without rising move that such and such a thing be adopted. The chairman if he did his duty would not recognize them because you can not make a motion until you have obtained the floor, and you cannot obtain the floor until you rise and address the chair. I am not telling you anything new. I am just calling your attention to some things that we may observe the rules and deliberate more wisely and get along better.

Another common mistake is in our committees. Any body of any size is wise in having committees and letting them thrash out the material. The committee's report is to contain the conclusions of their deliberations and not the deliberations. The object of a committee is to digest matters and get them down on the floor. The committee makes a report and some one moves that it be accepted. When a committee's report is made it is accepted; if you want to adopt the report then the motion in order is to adopt. A number of committee reports do not need adoption. When you adopt a report you assume the responsibility. A number of committees make reports and no action is necessary unless there are resolutions which are referred back or recommendations made. Committee reports that need no action need no motion. We used to make a motion that they be filed for reference. Take any report by the House of Delegates, somebody gets up and moves it be adopted. We should not adopt those things. In one sense it amounts to nothing. It is well to think of those little things. We cannot be too particular in anything of that kind. In attending other organizations I have watched their deliberations and their observance of rules, and I am a little proud to find that we do better, but I am anxious that we should be better still in all these matters. It is not that you do not want to, but if you would use a little more of the old Saxon word, "thinken," meaning to think, you would not have to be reminded of these things. I hope in the future you will be thinking and in years to come when the old parliamentarian

is gone, I hope you will be able to say his work lives after him. That would be a very great honor.

REPORT OF THE SECRETARY-TREASURER
REPORT OF SECRETARY-TREASURER, 1926-1927
CONSTITUENT SOCIETIES

On May 10 of this year we had received reports from ninety-five constituent societies. This is the same number which had reported on last year up to the same time, but by December 31, 1926, the total number of organized societies reached ninety-nine. The following is a brief analysis of our societies and membership according to districts as shown by our records on May 1, 1927:

First District—6 counties report 112 members; 138 last year.

Second District—11 counties report 120 members; 125 last year.

Third District—11 counties report 116 members; 123 last year.

Fourth District—6 counties report 65 members; 119 last year.

Fifth District—4 counties report 339 members; 386 last year.

Sixth District—11 counties report 120 members; 150 last year.

Seventh District—9 counties report 117 members; 136 last year.

Eighth District—10 counties report 88 members; 98 last year.

Ninth District—10 counties report 90 members; 102 last year.

Tenth District—6 counties report 112 members; 143 last year.

Eleventh District—7 counties report 77 members; 94 last year.

Twelfth District—11 counties report 82 members; 86 last year.

From the above we note that the Twelfth District shows the best record in proportion of members paid up on May 1, as compared with December 31, 1926; that is, on May 1 they had only four members less than on December 31, 1926. The Second District came second with only five members less and the Third District had only seven members less than on December 31, 1926. The Fourth District shows the greatest shortage in membership, both in actual numbers of members and percentage of members. On May 1, 1927, there were sixty-five members as compared with 119 on December 31, 1926, a shortage of fifty-four. The Fifth District showed the next greatest shortage in actual numbers but a proportionately less shortage in percentage. On May 1, 1927 there were three hundred thirty-nine members as compared with three hundred eighty-six on December 31, 1926, a shortage of forty-seven. The Tenth District came third with a shortage of thirty-one and the Sixth District came fourth with a shortage of

thirty, and the First District came fifth with a shortage of twenty-six members.

The backbone of Medical Organization is the Constituent Society, for this is the unit upon which the entire structure of Medical Organization is built. If we expect our state and national associations to remain democratic bodies true to the ideals of their founders, serving the best interests of the individual in the active practice of medicine we must exert every effort and lend every encouragement to the local constituent society. Therefore, we urge that every member of this House of Delegates take an active interest in all proceedings, study the Constitution and By-Laws and principles of Ethics, and make a complete report to his county society upon his return home. Every constituent county society is entitled to, and should receive this complete report from its respective delegates.

MEMBERSHIP

On May 1 the above constituent societies had reported 1438 active members with 60 honorary members as compared with 1410 active members with 46 honorary members on May 1, 1926. From May 1 to May 10 last year 50 members were added, making a grand total of 1460. During the same period of time this year 42 have been added, making a total this year up to May 10 of 1480. Therefore, at the present time we have the same number of county societies as we had last year with 20 more members. We feel that this excellent showing is due in no small measure to the very active work of our President, Dr. Harvard. The only district which he was unable to visit, the Fourth District, showing the greatest shortage of members.

On December 31, 1926, we had a total of 1700 members. To have the same number this year it will be necessary to secure 220 in addition to the number we already have.

JOURNAL OF THE MEDICAL ASSOCIATION
OF GEORGIA STATEMENT

SIZE OF JOURNAL

The issue for May, 1926, contained eighty pages and the remaining eleven numbers contained sixty-eight pages each.

PAPERS PUBLISHED

Seventy state, district and county papers have been published during the fiscal year ending April 30, 1927, as follows:

Thirty-nine state papers contributed by forty authors, two of which were Doctors C. C. Bass and Seale Harris, invited guests of the Association.

Thirty-one papers from the district and county societies contributed by thirty-three authors.

ADDRESSES

Address by our retiring President, Frank K. Boland, delivered before the annual meet-

ing of the Association at Albany; and the address of our President, V. O. Harvard, delivered before the Fulton County Medical Society have been published.

Address by Wm. R. Dancy, Savannah, delivering silver pitcher to our Parliamentarian, M. A. Clark; and acceptance of the gift by Dr. Clark.

Address by J. W. Palmer, Ailey, delivering the Badge of Service to our retiring President, Frank K. Boland; and acceptance by Dr. Boland.

EDITORIALS

Editorials were published in each of the twelve issues of the Journal contributed by the editor, associate editor and by nine other physicians, members of the Association.

ANNUAL SESSION

Proceedings of the Seventy-Seventh Annual Session of the Association were published, as follows:

Proceedings of the House of Delegates.

Report of officers.

Reports of committees.

Reports of councillors.

Conference of the secretaries of district and county societies.

FINANCIAL STATEMENT

Showing total income and disbursements of the Association in detail.

DIRECTORY

Directory of all the members of the Association with their addresses.

INDEX

Subject and Author's Index of all papers published during the calendar year ending December 31, 1926.

AMERICAN MEDICAL ASSOCIATION

Report of our delegates upon the meeting of the A. M. A.

Sketch of the report of the House of Delegates of the A. M. A.

Sketch of the report of the Committee on National Defense.

Sketch of address by President Wendell Phillips to the House of Delegates.

REGISTRATION

List of all members, visitors and exhibitors registering at the annual meeting of the Association at Albany.

WOMAN'S AUXILIARY

A regular department has been maintained by the Woman's Auxiliary to the Association, publishing such reports of the Auxiliary, district and county organizations, news items and other information as the officers submitted.

NURSES

The Georgia State Association of Graduate Nurses, beginning with the March, 1927, issue of the Journal is maintaining a regular department, publishing a great deal of general

information editorially, news of alumnae associations, local organizations, schools, nursing duties and requirements.

COMMUNICATIONS

Thirty-four communications have been published during the fiscal year, on almost as many subjects and purposes.

DISTRICT AND COUNTY SOCIETIES

A regular department has been maintained for the publication of minutes of the meetings of district and county societies and announcements of the officers.

NEWS ITEMS

News items in reference to the physicians, hospitals, nurses, health work and those furnished by our advertisers with request for publication have been published.

DEATHS

Notices of the death of forty-eight physicians have been published together with such information in reference to their habits, religion and lives as we were able to obtain.

COUNTY SOCIETIES

A list of all constituent county societies with the name and address of each president and secretary.

PAPERS ON HAND

Forty-two papers read before district and county societies, contributed by members of the Association are on hand now with requests for publication.

STATE BOARD OF HEALTH

Beginning with the March, 1927, issue of the Journal, we have published statistics and news of general interest furnished by the Georgia State Board of Health.

ADVERTISING

Receipts from Advertising for the fiscal year ending April 30, 1927, \$5,303.88
Receipts from Advertising for the fiscal year ending April 30, 1926, 4,208.23

COST OF JOURNAL

Lyon-Young Printing Company,	
printing and mailing	\$5,898.48
Envelopes	149.07
Postage	400.92
One-half of rent	129.00
Reporting (Mrs. Snyder)	440.02
Rubber Stamps	6.80
Attorneys' fees	52.87
Addressograph and supplies	71.87
Operating Graphotype and Addressograph	149.04
News clippings	60.00
Stationery and supplies	78.13
Salaries	1,800.00

Total \$9,236.20

The Associate Editor, Dr. R. S. Leadingham, has rendered invaluable assistance in the reading, correcting, and classification of articles, correcting proof, and writing valua-

ble editorials. We feel that the Association owes Dr. Leadingham a special debt of gratitude since his work has been done without any compensation whatsoever from the Association.

The Business Manager of the Journal, Mr. H. L. Rowe, has been untiring in his efforts and with the active co-operation of the members of the Council has secured an increase in income from advertising of \$1095.65 over last year. This alone represents a large amount of consistent work.

FULL-TIME EXECUTIVE SECRETARY

At the meeting of the Council on April 7, 1926, it approved the action of the Secretary-Treasurer in appointing Mr. H. L. Rowe, Executive Secretary, and fixed his salary at one hundred fifty dollars per month. In my annual report last year I stated: "I am pleased to report that he is doing his work in a most acceptable manner." With increasing knowledge of the affairs of the Association he has become more and more valuable; therefore, I have asked that his salary be increased.

COMMITTEES

Your committees—both standing and special—have served the Association well. Their reports will be presented to you by their respective chairmen.

FINANCIAL REPORT

On May 1, 1926, we had \$5677.94 in the bank with all current bills paid. On May 1, 1927, we had \$5,736.72 in the bank with all current bills paid. This shows an increase of money in the bank of \$58.78. Our total income for the fiscal year, ending April 30, 1927, was \$14,105.48 as compared with \$12,941.50 last year—a gain of \$1163.98. The principal items causing the increase in expenses this year were: Members of the Council—\$313.34 as compared with \$202.46 last year, or \$110.88 increase. Medical Defense—an increase of \$328.60. Increase in salary and expenses of executive secretary, \$250.00. Committee on Health and Public Instruction, \$159.90. Publication Committee of Council, \$100.86.

HISTORY OF ASSOCIATION

Our Association is now seventy-eight years old, having been founded at Macon in 1849. We have a list of the names of the Founders and an incomplete list of the Presidents. We have a fairly complete record of the transactions since 1881, but no transactions of the first thirty-two years of the Association's existence. We know very little of the great majority of the Founders and Presidents of our Association. We know still less of the early history of medicine in Georgia. The collection of all available information will require several years of persistent work; therefore, I recommend that the House of Delegates authorize the incoming President to ap-

point a committee consisting of our past Presidents and present officers of the Association to begin the collection of such information as will permit us to secure a history of medicine in Georgia.

CONCLUSION

In conclusion I wish to assure you of my sincere appreciation of the privilege of serving you. The officers and members of the Association have been uniformly courteous and helpful. This has been a year of quiet, steady progress achieved by the co-operation of every member.

Respectfully submitted,

ALLEN H. BUNCE, M.D.

It was moved that the report be adopted. Motion seconded and adopted.

REPORT OF THE CHAIRMAN OF THE COUNCIL

Dr. T. C. Thompson presented the following report:

MEMBERS REPORTED BY DISTRICTS

District	Members 1926	Members 5-1-27	Counties Reporting	Counties Missing
1st	138	112	6	5
2nd	125	120	11	1
3rd	123	116	11	4
4th	119	65	6	4
5th	386	339	4	1
6th	150	120	11	1
7th	136	117	9	4
8th	98	88	10	3
9th	102	90	10	8
10th	143	112	6	6
11th	94	77	7	12
12th	86	82	11	3
Totals	1700	1438	102	52

It was moved that the report be adopted. Motion seconded and carried.

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK

Dr. William H. Myers, Chairman, presented the following report:

To the Secretary

Medical Association of Georgia

Dear Doctor:

The Committee on Scientific Work had only one meeting, which took place in the office of the Secretary, in Atlanta, on March 16th. The purpose of the meeting was to arrange the program for the Seventy-eighth Annual Session. All members were present. There were altogether forty-five papers submitted, exclusive of those by the two invited essayists.

The Committee made every effort to arrange the program with justice and convenience to

all but, of course, the number of papers submitted exceeded the number that could appear on program at one session, so there were nine which could not be placed. In doing this great care was exercised to see that no injustice was done those whose papers could not be accepted.

The Chairman availed himself of the privilege and invited Dr. Aldo Castellani of Tulane University to read a paper, but as he was in Europe for several months, and was not heard from personally, the invitation was withdrawn, and Dr. Kenneth F. Maxey, United States Public Health Service, was invited instead. Dr. Maxey was given authority to appear but it is with regret that we learn of his illness and consequent inability to be present.

The Committee recommends that the expenses of Dr. E. A. Hines, an invited guest, be paid by the Association.

Respectfully submitted,

WM. H. MYERS, M.D., Chairman

W. A. MILLER

A. H. BUNCE, Secretary-Treas.

After discussion it was adopted.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. W. E. McCurry: This report is in three sections. I think it would be well to act on each section separately, rather than to read the entire report and then act on it.

Section I. Resolved that the Medical Association of Georgia sponsor and have introduced in the next session of the Legislature of Georgia "The Basic Science Act" as outlined in the Bulletin of the American Medical Association, Vol. 22, No. 1, pages 27, 28, 29 and 30, with such changes as will suit the conditions of the State of Georgia.

I move the adoption of that resolution.

Motion seconded.

The motion is carried.

Dr. McCurry: Section II reads as follows: Resolved that the Medical Association of Georgia secure such changes in the present Medical Practice Act and the Act creating the State Board of Health, so that it be allowed to nominate to the Governor of the State of Georgia three men, who must be members of the Medical Association of Georgia, to any vacancy that may occur in any position now filled by a physician on the State Board of Health or the State Board of Medical Examiners, the Governor then to make his appointments from the names submitted by the Medical Association.

Dr. M. E. Perkins: I move the adoption of that report.

The motion to adopt the resolution is carried.

Dr. McCurry: The third resolution reads as follows:

Section III. Resolved that the Medical Association of Georgia endorse the program of the State Board of Health as submitted in its budget for 1928 and 1929 and urge upon the General Assembly an adequate appropriation to properly carry on its work. Copy of said budget hereto attached and marked Exhibit II.

(Explanation of appropriation to be requested from Legislature.)

The State Board of Health is spending annually \$172,500

The appropriation from State Treasury is \$ 96,431

The difference, which is made up from funds from the International Health Board, United States Public Health Service, the Sheppard-Towner Fund, and counties, totals 76,069

\$172,500

To carry on present work, and to take care of the necessary present demand we should have \$143,000

If we are to extend the work, we should have:

Biologicals	\$ 5,000
Laboratory maintenance	5,000
County health work	20,000
Printing	5,000
Epidemiology	7,500
Public health education	7,500

\$50,000 \$50,000

\$193,000

Repairs to Laboratory \$ 15,000 15,000

\$208,000

State Tuberculosis Sanatorium:

Present appropriation	\$100,000
Additional needed for 1927	100,000
Appropriation for 1928	210,000
Appropriation for 1929	210,000

Georgia Training School for Mental Defectives:

Present appropriation	\$ 35,000
New buildings, 1928	200,000
Maintenance for 1928	100,000
Maintenance for 1929	100,000

Dr. McCurry: I move its adoption.

Dr. Clark: I move that the present budget asked for by the Board of Health and the

budget as offered by the Board of Health for 1928-29 be adopted.

The motion was seconded and carried.

Dr. McCurry: Section IV reads as follows: Your Committee recommends to the Council of the Medical Association of Georgia the employment of a qualified attorney to draft suitable bills for introduction into the legislature, so that the measures referred to in Section I and Section II of this report may be enacted into law.

The President: This will be referred to the Council without recommendation. They will act on it tomorrow and it will be returned to the House of Delegates on Friday.

Dr. McCurry: I move the adoption of the report as a whole.

Dr. Clark: The proper motion is to move the adoption of the report as amended. Any report given section by section can be adopted as a whole as amended.

Motion seconded and carried.

Dr. Thrash: I move that we extend a vote of thanks to this Committee for their careful work.

Motion seconded and carried.

COMMITTEE ON MEDICAL DEFENSE

Dr. Clark presented the following report:

There is getting to be a tendency to suit. You know the telephone is getting to be such a common thing with us that sometimes we do not use it wisely. Let me give you an example. A doctor over the phone told a man to get sulphate of barium in a certain amount. He did not know anything about barium. The druggist gave him a certain preparation, the man did not look at it, although it had a poison label on, and he gave his wife a dose. The undertaker buried the mistake. Of course we are probably within our rights to telephone these things, but we should be very careful how we telephone prescriptions. No drug that is poisonous should be telephoned.

Your Committee has spent none of its money except for these purposes. We hope to get through with the amount given us. We respectfully ask that you give us \$3500.

Let me warn you again about making criticisms of brother physicians. That is why many of these cases are thrown out of court. Sometimes in our eagerness to be wise we make comments that are taken by the laity.

Dr. Errod: I move the adoption of the report and thank the Committee.

Motion seconded and carried.

COMMITTEE ON HOSPITALS

Dr. B. T. Wise presented the following report:

To the President and House of Delegates of the Medical Association of Georgia:

Your Committee on Hospitals wishes to report that the number of Hospitals in Georgia is 110 with a total number of 11,240 beds.

Of these Hospitals 56 have Nurse Training Schools, of which 44 are accredited and 12 are not accredited. These Hospitals having Nurse Training Schools have a total number of 8315 beds.

There are 54 Hospitals without Nurse Training Schools, and have a total of 2925 beds.

In the Hospitals with Nurse Training Schools there was a total of 1189 undergraduates in 1926, and 258 graduates in 1926. The State Board of Nurse Examiners require two years of High School for admission to Nurse Training Schools, and 36 months of training.

The number of Registered Nurses in Georgia on January 1, 1924, was 1695. During 1924, 162 were registered, in 1925 there were 84, and in 1926, 285 were registered, making a total of 2226 registered to January 1, 1927.

The number of Registered Nurses in proportion to population in Georgia per 10,000 people is 7.1. Only one other State has the same low proportion, and one State has the high proportion of 104.9 of Nurses to 10,000 people.

These statistics were obtained from the Council on Medical Education and Hospitals of the American Medical Association.

The State of Georgia requires a license of \$100.00 for all private hospitals in the state. It seems to us that some gradation in the tax should be made. It is obviously unjust to tax a twenty-bed hospital at the same rate as a 100-bed hospital. Therefore we recommend that the present tax be revised and placed upon the basis that there shall be tax upon each bed rather than a blanket tax upon every hospital.

Respectfully submitted,

B. T. WISE, Chairman
A. J. MOONEY
HUGH N. PAGE

Dr. Wise: I move the adoption of the report. Motion seconded.

Dr. Boland: I move that the recommendation about the hospital being taxed according to the number of beds be referred to the Committee on Public Health and Legislation.

Dr. T. C. Thompson: I do not see why hospital beds should be taxed. It is an unjust tax.

The President: The motion is that we adopt the report with the exception of the recommendation concerning tax on hospital beds

which should be referred to the Committee on Public Policy and Legislation.

The motion is carried.

COMMITTEE ON CANCER

Dr. J. L. Campbell presented the following report:

ANNUAL REPORT OF THE CANCER COMMISSION OF THE MEDICAL ASSOCIATION OF GEORGIA

*Mr. President and Gentlemen of the
House of Delegates:*

Since our last report the educational work of your Cancer Commission has again been compelled to lag on account of insufficient financial resources.

A well attended public meeting was arranged by Dr. Allen at Hosehton during the last session of the Ninth District Medical Society and the people seemed to be interested in the subject of cancer control.

During the Southern Medical Association meeting in Atlanta last November we secured the First Baptist Church where Dr. Jos. C. Bloodgood made a most interesting address to a capacity audience. Colonel Bugg, President of the A. B. & A. Railroad, presided and the newspapers gave a most liberal report of the proceedings.

In December your chairman was invited to attend a meeting of the executive committee of the American Society for the Control of Cancer and spent several days in New York where various conferences were held with Dr. Geo. A. Soper and other officers of the National Society. Many guests were at the executive committee meeting, among them being President Coolidge's personal physician, Dr. Peterson of Ann Arbor, Michigan, Dr. Emerson, Director of Public Health Education, Columbia University, and almost a score of others. The outlook for the educational campaign was freely discussed, and your chairman has been informed that our plan of organization for the intensive cancer campaign, conducted here during the winter of 1924-25, was being used as a model for similar campaigns in various parts of the United States and Canada. Only recently Dr. Horsley, President of the Southern Medical Association, who has charge of the work for Virginia, wrote that the New York office had suggested to him that an outline of our plan might be of value in his work.

During the early weeks of the present year the Southern Ruralist, an agricultural paper with a circulation of 500,000, carried a series of articles, the authorship of which was attributed to the "Cancer Commission of the Medical Association of Georgia." After deal-

ing with the history of preventive medicine and the notable work being done for humanity by the medical profession, these articles emphasized the value of education as a means of controlling the ravages of cancer.

Just recently the National Society furnished us a large quantity of valuable literature which has been distributed to the county societies with the request that the secretaries review it at an early date and try to interest the Parent-Teachers Associations in this subject which is of such vital importance to all women.

We have arranged to devote a three-hour period, June 10th, during the Emory Alumni Clinics, to the study of cancer and we are making an effort to have some one of the prominent students of the subject attend and deliver a lecture on some phase of the cancer problem. Up to the present we have been unable to secure the necessary money to finance the scheme.

I have had in mind asking each of the hospitals in the state to send a representative to Atlanta for a conference on cancer. The resources of the Steiner Clinic have been placed at our disposal for such a meeting; but, as in the case of a speaker for our Alumni Symposium, we have not yet been able to see our way clear to arrange the meeting.

This report marks the close of the first decade of your Commission's educational campaign and I want to express my appreciation for the excellent co-operation you have given me. The work is fascinating and I feel that some good has been accomplished, although we are many times discouraged, especially when we see so many advanced cancers drift into the clinics and even into the private offices of those who do cancer work. Yet we believe with Dr. Wainwright, Chairman of the Cancer Commission of the Medical Association of Pennsylvania, that "Cancer Education Pays."

Respectfully submitted,

J. L. CAMPBELL, Chairman

23 Doctors Bldg.

Atlanta, Ga.

May 10, 1927

It was moved that the report be adopted.
Motion seconded and carried.

COMMITTEE ON NATIONAL DEFENSE

Dr. Boland presented the following report:
*To the President and House of Delegates
of the Medical Association of Georgia:
Gentlemen:*

I submit, herewith, the report of the Committee on National Defense for 1926-27. I re-

gret to say that this committee can not report having accomplished anything during the time it has been in office. Not only the members of the Association cannot be aroused to the importance of the Medical Officers Reserve Corps, but even the members of the committee have failed to manifest any interest in the matter. Only three members of the committee have replied to any communications. We all have reached the same conclusion, that the members of the Medical Association of Georgia are not interested in joining the Medical Officers Reserve Corps.

This is the third year this committee has been in existence. The first year the work of the committee was fairly successful. The second year but very little was accomplished, and this year practically nothing has been accomplished. It, therefore, seems that the appointment of this committee should be discontinued. We make this suggestion with reluctance, however, since we feel that the proper quota of the members of our Association should join the Reserve Corps. At the present time we have filled our quota only about one-third.

As the years pass by since the World War our citizens are prone to think less and less of the possibility of another war. We would like to believe that our country would never again be engaged in war, but history fails to support such a happy thought. We have had a war an average of every twenty years since the United States was founded. Certainly the young men should appreciate the value of becoming Reserve Officers. Correspondence courses and camp experience during vacation are offered to equip the Medical Officer for his work. We have written to the Deans of the medical colleges of Georgia, urging them to bring this matter to the attention of the graduates of this year. The medical profession can not render the country the best service during the next war unless we prepare for it during the piping times of peace.

If a successor to the present committee is appointed, we suggest that its personnel be changed completely.

Respectfully submitted,
FRANK K. BOLAND, Chairman
Committee on National Defense

Dr. Thrash: I move its adoption. (Motion seconded.)

Dr. Clark: Do you realize that in adopting the report that we are recommending discharging the committee?

Motion is carried.

REPORT OF DELEGATES TO THE AMERICAN
MEDICAL ASSOCIATION

Dr. E. C. Thrash: I made a report last year.

We met after the American Medical Association. That report is on file.

REPORT OF FRATERNAL DELEGATES TO OTHER STATE MEETINGS

The following report was received from Dr. R. F. Wheat, a member of the Committee to visit Florida:

*Dr. V. O. Harvard, President
of Medical Association of Georgia
Arabi, Ga.*

Dear Doctor:

I attended the Florida Medical Association as fraternal delegate and enjoyed the meeting very much. They had a very instructive program and proceedings, all of which I enjoyed. They entertained me royally while there and I shall ever have a warm place in my heart for the Florida Medical Association.

The president, Dr. Mason Smith, was especially nice, extending all the privileges of the association. He appointed two fraternal delegates to bring greetings to the Georgia Association who were as follows: Dr. Fred Moor of Tallahassee, and Dr. J. Q. Folmer of the State Infirmary of Chattahoochee. I think Mr. Moor has had the president appoint Dr. B. A. Wilkinson, his associate, in his stead as he was reared and educated in Georgia. I hope you and members of the Medical Association of Georgia will show these doctors every courtesy within your power. I will probably not attend as things over which I have no power prevents me.

I hope you will have the best meeting in the history of the association.

With best wishes for a good meeting and regretting my inability to attend I beg to remain,

Respectfully submitted,
R. F. WHEAT, M.D.

It was moved that the report be accepted. Motion seconded and carried.

To Visit North Carolina: Dr. Ayers reported that neither he nor Dr. Downey were able to attend the North Carolina meeting.

To Visit South Carolina: Dr. Mulherin: I would like to state that I was unfortunately denied the pleasure of attending the South Carolina meeting, as I had to attend a Superior Court in Atlanta. I asked Dr. Eaton to take my place, so he and Dr. Fullilove represented us.

Dr. Fullilove: Dr. Eaton and I went over there. They had a good meeting. There were about one hundred delegates at the first night's meeting. I noticed that the House of Delegates elected officers by nominations. They had nomination speeches and some of

them were fine. I do not know whether that would be a good order for us to adopt. They had a full program and I enjoyed the meeting very much.

To Visit Alabama: Dr. Bunee read the following report from the Committee:

Medical Association of Georgia:

Your fraternal delegates to the Alabama State Medical Association respectfully submits the following report:

We attended the Alabama State Medical meeting, which was held in Montgomery on April 19th to 22d. We received a warm welcome and was extended the privilege of the floor in discussion of papers. The papers read were cleverly arranged and instructive.

S. W. Welch of Montgomery, gave a full report of the health conditions in Alabama; showing they are trying to do something for the betterment of the people.

They had quite a number of visiting physicians. G. Canby Robinson, Dean and Professor of Medicine, Vanderbilt University, Nashville, Tenn., read a very interesting paper on "The mechanism of heart failure and its correction," and many other good papers were read by various doctors.

Jabez N. Jackson, President-Elect A. M. A. was to read a paper, but on account of the Mississippi flood failed to get there and instead we had a very fine lecture by the Hon. Lister Hill on the "Doctor Himself." We had a real good time, as well as instructive.

F. M. MARTIN, M.D.

E. C. McCURDY, M.D.

The President: I am very glad the men tried to attend. We have had this only for two years.

NEW BUSINESS

Dr. Harrold: I have a communication from Bibb County Medical Society concerning the Workmen's Compensation Act.

Macon, Ga., May 9, 1927

*To the Governor-elect of Georgia
and the Legislature of 1927:*

The Bibb County Medical Association, composed of seventy-two doctors residing and practicing medicine and surgery in Bibb County desire to call your attention to what we regard as a serious defect in the present Workmen's Compensation Act, and to petition and request that the same be remedied.

To begin with we believe that the present act is a great step forward in the proper protection and care of working men, and wish it understood that we do not in any sense desire

the law rescinded. We think, however, that it was generally realized when the law was enacted, that the venture was comparatively a new one and that as time went by, defects would be found and the law correspondingly amended and corrected. To call attention to a case in point, when the law was first enacted, an injured employee had to lose two weeks from his work before he was entitled to any compensation. This was soon seen to be unfair to men suffering from slight injuries, yet injuries severe enough to keep a man from work, and the law was amended.

As the law is at present, the state recognizes fully the duty of industry to care for a man injured while at the discharge of his duties, and requires the employer to see that the injured man receive certain pay while away from work. It also recognizes the responsibility of the employer to see that the injured employee receive proper hospital and medical care, and pay for the same. This is now generally recognized as only fair.

The law, however, in Georgia and in many other states limits the time during which the injured man may receive treatment at the expense of the industry and also limits the amount of money which the industry must pay the doctor and the hospital. We claim that this is not fair or just either to the injured man or to the doctor or hospital. The limit is thirty days in time and a total of one hundred dollars in money. We realize that in ninety-five cases out of the hundred, this is sufficient as most injuries are fortunately not serious. We claim, however, that it is the man who is seriously injured who should receive the most careful attention, should be hospitalized longer and whose medical and hospital care will be most expensive. Yet as the law stands, at the end of thirty days the doctor and the hospital will be no longer paid unless the injured man himself pay for his further care.

To illustrate the injustice of the law as it is at present, two cases may be cited. Within the last few days a customer in a store in Macon slipped on a banana peel and fell, breaking her hip. She will be under the care of a doctor for at least six months and will be in the hospital for at least three months. Now if the injured person had been an employee of the store rather than a customer, the employer would be required under the law to take care of her for only thirty days and to not pay the hospital more than the hospital share of one hundred dollars. In the case of the customer, the store is willingly going to pay the hospital for three months care, (a ward bill amounting to more than three hundred dollars), and is also going to pay the doctor fully one hundred dollars. Surely the

hired employee should have at least as much care guaranteed to him as a customer.

In large cities of the state such injured cases may be treated in the charity wards of the city hospitals, and the general hospital care borne by the taxpayers at large. Even this is not fair as industry should pay this expense. In small communities, however, where the hospitals (if any exist) are owned by private individuals, this state of affairs is absolutely unjust.

Again, it is not fair to an injured man to pay for his care if he is slightly injured—but not pay for it if he is seriously hurt. If any such discrimination is made, it should be reversed, and pay only for the seriously hurt, and not for the slightly injured. Men who are injured in industry should not be treated as charity and both they and the doctors resent their being so treated.

We, therefore, ask that the present act be so amended that the limit of liability both as to time and money be omitted. This is true in a number of states at present and the number will be increased every year until most of the states will recognize this full responsibility to men and women injured by and in industry. Many insurance companies already realize this responsibility and even when they are operating in Georgia where the limits exist under the law, do not require their assured to live up to the present legal limitations. Other companies, however, do require their assured to live up to the legal limits and notify the doctors that any further services will be in the nature of charity, or that any further fees are in the nature of a gift.

We respectfully request and petition that this defect in our law be remedied.

Respectfully,
BIBB COUNTY MEDICAL SOCIETY,
By—

Olin H. Weaver, M.D.,
Charles C. Harrold, M.D.,
Charles H. Richardson, M.D.,
Committee.

I move that it be referred to the Committee on Public Policy and Legislation. (Motion seconded.)

Motion is carried.

Dr. Abercrombie: I would like to thank the House of Delegates for their part in helping us to re-establish the vital statistics law. At the last meeting of the Medical Association that was brought up. At the last meeting of the legislature a law was passed bringing the vital statistics law back on the statutes. I want to thank you and the medical profession of Georgia for the help given. Just before I left I got this information: In the registration area the ratio of births to deaths was

174 for the first quarter of the year. In Georgia the ratio was 176, two more than in the registration area. In March of this year only fourteen per cent did not make any report. Since we are getting this law back, I want to ask your help.

Dr. Thrash: I move we adjourn until 9 o'clock tomorrow morning. Motion seconded and carried.

The House adjourned at 10 P.M.

SECOND MEETING

WEDNESDAY, MAY 11, 1927

The second meeting of the House of Delegates was called to order at 9 A.M. by the President, Dr. V. O. Harvard, Arabi.

Roll Call: The Secretary stated that he held in his hand the signed roll call of thirty-seven Delegates and moved that this constitute the roll call for this meeting.

Motion seconded and carried.

The President declared a quorum present, and the House duly constituted for the transaction of business.

Those present were:

J. M. Anderson, Muscogee County.
A. S. M. Coleman, Councillor 11th District.
R. R. Bridges, Tri-County Medical Society.
F. K. Boland, Ex-President, Fulton County.
M. T. Benson, Fulton County.
J. N. Brawner, Fulton County.
J. G. Dean, Ex-President, Terrell County.
H. W. Doster, Screven County.
J. H. Dees, Montgomery County.
W. R. Dancy, Chatham County.
J. W. Daniel, Ex-President, Chatham Co.
H. L. Earl, Warren County.
G. L. Echols, Baldwin County.
J. O. Elrod, Ex-President, Monroe County.
A. G. Fort, Fulton County.
W. C. Hafford, Ware County.
T. Lowry, Bartow County.
R. B. Lamb, Habersham County.
R. L. Miller, Burke County.
W. E. McCurry, Hart County.
W. L. Mathews, Barrow County.
G. Y. Moore, Randolph County.
W. E. Mobley, Bibb County.
W. H. Myers, Chatham County.
W. A. Mulherin, Richmond County.
W. H. Perkinson, Cobb County.
E. S. Peacock, Washington County.
M. E. Perkins, Jenkins County.
D. S. Reese, Carroll County.
C. W. Roberts, Fulton County.
O. W. Roberts, Carroll County.
C. K. Sharp, Councillor for 2d District.
D. Y. Sage, Fulton County.
T. C. Thompson, Councillor 12th District.
E. C. Thrash, Councillor 5th District.

J. Yampolsky, Fulton County.

H. D. Youmans, Toombs.

President Harvard, Secretary Bunce and Parliamentarian Clark were also present.

The Secretary read the minutes of the previous meeting.

Dr. Clark: I move they be adopted. Motion seconded and carried.

Dr. J. M. Anderson: I move that we fix the time for adjournment at 9:45, so as to be able to attend the general session. Motion seconded and carried.

REPORT OF COMMITTEES (Continued)

COMMITTEE ON ARRANGEMENTS

Dr. A. A. Rayle, Athens: Everything the Committee on Arrangements has done is in the official program. The place of meeting will be in the Colonial Theater. All meetings of the House of Delegates will be in the Court House.

Regarding entertainment, there will be a reception this evening at 5:30 at the home of Mrs. Francis Long Taylor and Miss Emma Long, daughters of Dr. Crawford Long. It has been the custom in that family to entertain the doctors every time they come to Athens. There will be a barbecue at East Lake Thursday night and following the public session on Thursday there will be a dance at the Athens Country Club. Members who desire may play golf. There will be two small entertainments that will conflict with the meetings on the program, one on Thursday afternoon in the Normal School, and a May Day Festival this afternoon. We have a committee on transportation to see that cars are provided for all these functions. We also have a committee on accommodations in charge of Dr. Reynolds, to see that those who can not find rooms in the hotels are provided for in private homes.

It was moved that the report be accepted with thanks. Motion seconded and carried.

The President: I will ask Dr. Bunce to read the motion passed last year.

Dr. Bunce: "At the first meeting of each annual session of the House of Delegates the President appoint a committee of three from this body, whose duty it shall be to receive from the several representative counties in which there are vacancies nominations for Councilor for their district, and to bring recommendations to this body for its action."

The President: In accordance with this motion I appoint Drs. A. G. Fort, M. E. Perkins, and G. L. Echols on this committee to report Friday morning.

The President: That brings us down to unfinished business.

Dr. Boland: I have a report from the Committee appointed last year on revision of the constitution and by-laws.

REPORT OF COMMITTEE ON CONSTITUTION AND BY-LAWS

The Committee appointed by the House of Delegates at the 1926 annual session of the Association to study the model Constitution and By-Laws for the state associations met in the office of the Chairman, Dr. F. K. Boland, Atlanta, April 6, 1927, at 5 p.m. Those present were the Chairman, Dr. M. A. Clark, and Dr. Allen H. Bunce.

The Committee submits the following recommendations:

CONSTITUTION

Article V—Add "President-Elect."

Article VI—Add "President-Elect."

Article VII—Add "Provided that in case of conflict with the meeting of the A. M. A. the Council may change the date by publishing a notice in the Journal three months before the meeting."

Article IX, Sec. 1—Add "President-Elect."

Article IX, Sec. 3—Add "By nomination as provided in Sec. 4."

Add "Sec. 4. The President at the first meeting of the House of Delegates at each annual session shall appoint a committee on nominations consisting of twelve delegates, one from each Congressional District. The committee on nominations shall report in the form of a ticket containing the names of one candidate for each elective office. This report shall be made to the House of Delegates on Friday morning."

BY-LAWS

Chapter I, Sec. 4—"Except subscription to Journal."

Chapter III, Sec. 3—"Twenty delegates present shall constitute a quorum."

Chapter IV, Sec. 2—"In order to give him the opportunity of becoming better acquainted with his duties and with the needs of the Association, the president shall be elected one year prior to taking office. During this time he shall be known as the President-elect."

Respectfully submitted,

F. K. BOLAND, M.D.

M. A. CLARK, M.D.

ALLEN H. BUNCE, M.D.

The President: This is an amendment to the constitution and by-laws which will have to lay over for a year.

Dr. Boland: I would like to add an amendment to report of last night on National Defense. Dr. Rufus E. Graham, Savannah, a member of the Committee, writes me that he

has succeeded in getting two Savannah doctors examined for appointment to the Medical Reserve Corps, namely, Harry M. Kandel and Henry L. Levington. That really indicates that we did accomplish something. It is very proper and very much expected that such a report would come from Savannah, because Savannah has always been the cradle of patriotism in this state. I am glad Savannah comes up with such a good report.

The Secretary: The following is an amendment to the constitution and by-laws which was proposed last year:

Article IX, Section 3, changed to read, "Delegates to the American Medical Association shall be elected at the same time and in the same manner, providing that the two receiving the highest votes shall be delegates, and the next two highest shall be alternates."

Dr. C. C. Harrold: I move its adoption.

Dr. Clark: I would like to offer an amendment to that: The section will continue as it is now, "Delegates to the American Medical Association shall be elected at the same time and in the same manner. In case any delegate or alternate receives in the first ballot a majority of the votes cast, the two receiving the highest number of votes cast shall be the delegate and alternate, and so until the number of delegates are elected. I move the adoption of the amendment to the amendment. Motion seconded.

Dr. Harrold: Suppose you are trying to elect two delegates and the two receiving the majority of votes would be for instance, Boland and McCurry, then Boland would be the delegate and McCurry the alternate. It would seem to me that McCurry would be the second choice and should be the second delegate.

Dr. Clark: That is worthy of consideration.

Dr. Harrold: I think your amendment will work all right when you are voting for only one delegate and one alternate. It might throw a man out whom the Association might wish as delegate.

Dr. McCurry: This seems to give too little attention to whom we elect. I am opposed to any office in the Association being filled by any man who receives less than a majority vote. I believe delegate to the American Medical Association is too important an office to be filled in this way. Therefore, I move you that we table this amendment.

Motion seconded.

Dr. Clark: There has been more trouble about electing delegates.

The motion to table the amendment was put to a vote and was lost.

Dr. Clark: There is no reflection on the

office. In trying to get a plan to elect delegates this was brought up.

Dr. Harrold: The only objection I can see is that it could happen that eight or ten men could combine on one man and as it is now with our present vote of 100, twelve or fourteen could elect a man. I imagine that is Dr. McCurry's objection. I have not been to a meeting for some time and I do not know how much time it takes to elect delegates but I imagine not very much time. I would rather agree with Dr. McCurry to leave it as it has been. I am, therefore, opposed to changing it.

The vote was taken and this amendment to the amendment lost.

The amendment was lost.

NEW BUSINESS

Dr. Thrash: The Alumnae of the Women's College at Milledgeville are trying to build a memorial hospital in memory of Dr. Parks. This organization feels that they will be helped if the Medical Association of Georgia will endorse the plan. I would like to introduce this resolution:

Be It Resolved, that the Medical Association of Georgia endorse the movement on the part of the Alumnae of the Georgia State College for Women to erect a hospital on the campus of the College as a memorial to Dr. Parks, the school's late president.

Dr. Miller: I move the adoption of the resolution. Motion seconded and carried.

Dr. Miller: I have a matter that has been rankling in me for a long time, it is the question of nurses in the state of Georgia. I make a motion that the Chair appoint a committee of five to confer with the various hospitals in which there are training schools for nurses with a view to relieving the nursing situation in the state by putting on different grades of nurses, for instance, one with thirty-six months' training and the next with twenty-four months. The situation in the rural districts is acute. The price of \$49.00 per week is prohibitive to the average run of patients; where you have to have two nurses it amounts to \$70.00 per week. Those prices are prohibitive. I am making no fight on the highly trained registered nurse but there are people who cannot afford to pay that price. My idea is that a committee be appointed by the incoming president to confer with the various hospitals that have these training schools and with the nurses' organization, and try to get through the next legislature a bill permitting different grades of nurses.

Motion is seconded.

The motion as offered by Dr. Miller was carried.

Dr. Clark: I would like to read for your information from Roberts' Rules of Order,

page 106. It is not in order to lay on the table unfinished business or reports of Committee.

The President: The time for adjournment has arrived. The House will now adjourn until 8 o'clock Friday morning.

House adjourned at 9:45 A.M.

THIRD MEETING FRIDAY, MAY 13, 1927

The third meeting of the House of Delegates was called to order at 8:15 A.M., by the President, Dr. V. O. Harvard, Arabi.

Roll Call: The Secretary stated that he held in his hand the signed roll call of twenty-seven delegates and councillors, and moved that this constitute the roll call for this meeting.

Motion seconded and carried.

The President declared a quorum present, and the House duly constituted for the transaction of business.

Those present were:

J. M. Anderson, Lamar County.
C. L. Ayers, Councillor 9th District.
J. M. Anderson, Muscogee County.
J. N. Brawner, Fulton County.
M. T. Benson, Fulton County.
A. S. M. Coleman, Councillor 11th District.
W. R. Dancy, Chatham County.
J. H. Dees, Montgomery County.
J. O. Elrod, Ex-President, Monroe County.
R. C. Franklin, Emanuel County.
A. F. Gort, Fulton County.
J. E. D. Isbell, Stephens County.
R. B. Lamb, Habersham County.
W. A. Mulherin, Richmond County.
W. E. Mobley, Bibb County.
W. H. Myers, Chatham County.
W. L. Mathews, Barrow County.
G. Y. Moore, Randolph County.
R. L. Miller, Burke County.
W. E. McCurry, Hart County.
C. W. Roberts, Fulton County.
O. W. Roberts, Carroll County.
W. A. Selman, Fulton County.
D. Y. Sage, Fulton County.
T. C. Thompson, Toombs County.
C. Thompson, Jenkins County.
J. Yampolsky, Fulton County.

President Harvard, Secretary Bunce and Parliamentarian Clark were also present.

The Secretary read the minutes of the previous meeting.

It was moved that they be adopted. Motion seconded and carried.

NEW BUSINESS

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTIONS

Dr. Clark: I am presenting the following

resolution at the request of the Committee on Health and Public Instruction.

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

RESOLUTION

The Committee on Health and Public Instruction shall consist of five members. It shall elect its own chairman at a meeting called by the Secretary of the Association not later than 60 days after the annual meeting of the Association. He shall be a member of the House of Delegates by virtue of his office. The members shall be appointed by the president for a period of 5 years, at this time he shall appoint them for 1, 2, 3, 4, and 5 years respectively.

It shall be the duty of this committee to hold conferences with the State Board of Health and other bodies that are legally charged with the administration of health laws, to the end that the highest degree of co-operation may be secured between the legal health authorities and the medical profession and that the interests both of the profession and the public may be safeguarded by a fair and just administration of public activities.

It shall further be the duty of this committee to disseminate through all legitimate agencies such medical information as will most benefit the medical profession and the public.

J. A. THRASH, Chairman.
THEO. TOEPEL

Dr. Clark: I suggested to you the other night that it would be well to use the old Saxon word "thinken" a little more. If the Committee had read the constitution and by-laws they would not have done this. Being chairman of a committee does not make you a member of the House of Delegates. The House of Delegates may appoint men on committees. These committees meet and report. The chairman of a committee when he comes has the privilege in his report to discuss the policies in the report. Of course he is not a member of the House of Delegates. To grant this request you have to give notice to change the constitution which would require a two-thirds vote. We may appoint standing committees without giving notice of a change in our by-laws. If you adopt this resolution you have two conflicting rules. In 1923 we passed the following resolution:

Resolved, That the Committee on Health and Public Instruction shall consist of three members and the President and Secretary. The three members, one of whom shall act as Chairman of the Committee, shall be appointed for a period of three years. Those

appointed this year (1923) shall serve three, two and one years, respectively.

If this body thinks it is wise to increase this committee to five, we can change the wording of the resolution in connection with this rule that we already have. As to passing a rule as to chairman, that is unnecessary. Under all parliamentary law unless a body elects a chairman of a committee, the first one named becomes the chairman or the committee may elect its own chairman, so it seems to me that is unnecessary. The only part we can change is to increase the committee from three to five.

Dr. Miller: I move that we act unfavorably on this. Motion seconded and carried.

Dr. Daney: I would like to offer the following resolution:

Be It Resolved, That there shall be no more than one delegate from the Medical Association of Georgia to the American Medical Association from any one Councillor District.

This rule to take effect next year. I move its adoption.

Motion seconded and carried.

Dr. C. W. Roberts: I wish to offer the following resolution:

Whereas, We recognize the great value to the members of our Association that has accrued as a result of the Scientific Exhibit presented at this session by the Board of Trustees of the Steiner Cancer Clinic of Atlanta, Georgia, and

Whereas, This Exhibit has been made more instructive by the constant presence of a member of the Clinic's Professional Staff to elucidate the many interesting features of the cancer problem suggested by the demonstration, and

Whereas, The proportions of this exhibit has made necessary the outlay of an unusual amount of time and expense on the part of its Staff and Trustees, with the thought only that the scourge of cancer might more effectively be combatted;

Therefore Be It Resolved, That the Medical Association of Georgia express its deep appreciation to the Board of Trustees and Professional Staff of the Steiner Cancer Clinic for the high order of service which they have rendered our members coupled with our hope that the impressive work demonstrated here may be carried forward with an ever increasing effectiveness.

Resolved, That a copy of these resolutions be forwarded to the Board of Trustees and Staff of the Clinic.

Resolved, Further, That the thanks of this Association be offered through our Secretary to all contributors in the Scientific Section, who have amplified the instruction given at this session by the presentation of demonstra-

tive exhibits.

I move its adoption.

Motion seconded and carried.

Dr. Clark: In observing from time to time our programs I thought it would be wise to have an order of business. Each year the Committee on Scientific Work meets to prepare the scientific program without giving thought to an order of business. Take for instance the condition of this morning. It would be very difficult to transact any new business this morning and get it before the general body to be ratified. You see the wisdom of having our business meetings at different times. It seems to me wise to have a committee to give this serious thought and report an order of business at the next session. If you will pardon my making a motion, I would suggest that the Committee on the revision of the constitution and by-laws be given the authority to prepare an order of business to be presented to the general body at the next session.

Motion seconded and carried.

The Secretary: I have a report from the Council to submit. The following matters were referred to the Council because they involve the expenditure of money:

The Council authorizes the Committee on Public Policy and Legislation to incur an expense not exceeding \$100.00 in order to have bills approved here properly prepared for presentation to the Legislature, or as much of that \$100.00 as is necessary.

The Council approved the expenditure of money up to \$3500.00 for the Committee on Medical Defense.

The Council approved the suggestion coming from the Committee on Scientific Work that the expenses of our invited guest be paid.

The Council adopted the report of its Auditing Committee, C. K. Sharp, Chairman, A. S. M. Coleman, and S. D. Brown, which audited the books of the Secretary-Treasurer and found them correct.

The Council increased the salary of the Executive Secretary, Mr. H. L. Rowe, to \$175.00 per month.

Dr. Miller: I move that we ratify the recommendations of the Council.

Motion seconded and carried.

The President: The Nominating Committee appointed at the last meeting will now submit one name for Councillor from each of the first four congressional districts.

Dr. Miller: Before we go to the election of Councillors, I wish to make a motion that we adopt the resolution to endorse the hospital on the campus of the Georgia State College for Women. This motion originated with Dr. Cleveland Thompson and that we request

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to Welfare of Medical Profession of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

OCTOBER, 1927

ALLEN H. BUNCE, M.D., Editor

H. L. ROWE, Business Manager

Publication Committee

E. C. THRASH, M.D., Chairman

A. S. M. COLEMAN, M.D.

M. M. HEAD, M.D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department**THE PASSING OF MALARIA**

It is evidence of the progress made by preventive medicine in these parts that a disease, which a few years ago was so prevalent that some communities looked forward to periodic chills and fever as a matter of course, should now deserve the above title by Dr. C. C. Bass in the April number of the New Orleans Medical and Surgical Journal.

He states that, whereas ten years ago the wards of the Charity Hospital of Louisiana at New Orleans were seldom without numbers of patients with malaria, at the present time such cases are so rare that it is difficult to find sufficient material through the year to demonstrate the infection to the medical students. He notes that among the factors contributing to the elimination of the disease are: first, the clearing and draining of lands for agricultural purposes; second, the widespread knowledge that it is transmitted by mosquitoes and the measures taken to prevent infection through their bites; and third, the inten-

sive and intelligent use of quinine.

A fourth and essential factor, universally recognized, is the contribution made by Dr. Bass himself as head of the National Malaria Committee, and his success in culturing the plasmodia in artificial media.

An idea of the extent of the decline is given by Dr. F. M. Johns who in discussing the subject stated that among two hundred fifty-nine smears examined for malaria in a year's time only one showed the plasmodia. In three years at Wesley Memorial Hospital in Atlanta only three cases were found in the laboratory.

These findings and the well-known fact that practicing physicians generally are seeing so much less of the infection should remind us that the essential factor in diagnosis is the demonstration of the parasite in blood smears.

Our State Board of Health laboratories are well equipped to render this service.

It is to be hoped that through the co-operation of the public health officials and the practitioners of the state it will not be long until the disease that at one time was a scourge in many southern localities will be a thing of the past.

LEADINGHAM.

GEORGIA STATE BOARD OF HEALTH**BUREAU OF VITAL STATISTICS**

The State Board of Health announces that there were 2,552 deaths reported in Georgia for the month of July, 1927, with a corresponding death rate of 9.7 per 1,000 population. This rate is 14 per cent lower than the corresponding rate (11.3) the year 1924.

For each month of this year, January to July, inclusive, the death rate from all causes has been lower than the corresponding rates for 1924. This indication of better health conditions is not peculiar to Georgia alone for the entire United States and Canada show the same favorable conditions for the first six months of this year.

The typhoid fever death rate for July, 1927 (40.5) is 4 per cent lower than the death rate in July, 1924. This may indicate that the high incidence of typhoid fever during the months of May and June is checked for this year.

Malaria fever death rate (7.2) is 65 per cent lower than the death rate in July, 1924.

the corresponding death rate in 1924.

Tuberculosis death rate shows a substantial decrease.

MORBIDITY AND MORTALITY REPORT FOR MONTH OF JULY, 1927

(Figures for 1927 are provisional,
subject to correction)

CAUSE	REPORTED FOR JULY					
	Number		Annual Rate per 100,000			
	1927		Cases		Deaths	
	Cases	Deaths	1927	1924	1927	1924
All Causes	2552				966.0	1131.0
Acute Inf.						
Conjunctivitis	2		0.7			
Anchylo-						
stomiasis	12		4.6			
Anthrax	1		0.4			
Automobile						
Accidents	* 28				10.6	9.7
Cancer	* 123				46.5	43.6
Cerebrospinal						
Meningitis	1	5	0.4		1.9	
Chicken Pox	12		4.6	0.4		
Diphtheria	52	14	19.7	4.7	5.3	2.7
Dysentery	78	31	29.5	11.7	11.7	41.3
Gonorrhea	170	1	64.3	40.9	0.4	0.8
Heart Disease	* 205				77.6	97.8
Homicides	* 34				12.9	16.8
Influenza	99	24	37.5	13.2	9.1	5.8
Malaria	311	19	117.7	34.3	7.2	20.6
Measles	114	9	43.1	1.9	3.4	6.6
Mumps	34		12.9	5.1		0.4
Nephritis	* 327				123.8	107.1
Pellagra	92	73	34.8	1.9	27.6	14.8
Pneumonia	55	98	20.8	7.8	37.1	33.5
Poliomyelitis	5	3	1.9	1.9	1.1	1.6
Scarlet Fever	35		13.2	10.5		
Septic Sore						
Throat	14		5.3			
Smallpox	77		29.2	10.9		
Suicides	* 8				3.0	6.6
Syphilis	212	30	80.3	10.9	11.4	12.9
Tetanus		7		0.4	2.7	0.8
Tuberculosis						
(All Forms)	71	199	26.9	22.6	75.3	83.4
Typhoid Fever	415	107	157.1	53.4	40.5	42.1
Typhus Fever	3		1.1			
Whooping						
Cough	111	27	42.0	13.2	10.2	21.0

*Cases not required to be reported.

Dysentery shows a decrease in its death rate (11.7) of 71 per cent compared with the rate in July, 1924.

The death rate (10.6) from automobile accidents for July, 1927, is slightly higher than

A NEW ASPECT

It is encouraging to note the gradual change of opinion on the part of the members of the Medical Association of Georgia toward a newer responsibility which our doctors are assuming, in order to keep abreast of modern times.

As education advances, the knowledge on fundamental scientific subjects becoming common property of the average high school pupil, it is up to us as leaders in all matters pertaining to health in our state to pave the way for a better understanding of the fundamentals of healthful living. It is a responsibility which requires personal sacrifices, but which we cannot afford to neglect. There are still too many laymen who are misinformed as to our true aim, as their fellow citizens, in our unselfish contributions toward better health, a stronger citizenship, and a richer state.

One of the important messages that we, as physicians, must not hesitate to present to our patients and also in lectures to bodies of laymen, is the wisdom of an annual physical examination as a birthday duty of the apparently healthy. Preventive medicine has made wonderful strides in the direction of detecting physical ailments in their incipency and advising simple remedies, such as dietary correction or a change in hygiene to avoid a pathological condition. The health magazine, "Hygeia," published by the American Medical Association has repeatedly carried articles, written by authorities on this subject; calling to our attention the importance of having a thorough physical examination by the family physician. It thus becomes our duty in the follow-up work to make this a popular idea with our patients. It is only by insistent perseverance that we shall succeed.

A desire on the part of our members to keep in the foreground with medical progress is manifested by the large number of physicians attending the extension courses arranged by the Medical Department of the University of Georgia, and also by the attendance at the

annual clinics conducted by the Medical Department of Emory University during commencement week. At a recent meeting of the Committee on Health and Public Instruction this subject of extension work in medical education received consideration and it was decided to lend our support and encourage the attendance at these two established courses. It was also agreed, in order to make graduate medical training available to those who may not be reached by either of these two courses, to apply to the committee for assistance. This committee will be glad to arrange a course of graduate medical training in a center convenient to the members desiring it, in subjects for which there may be a need.

TOEPEL.

PROCEEDINGS OF HOUSE OF DELEGATES
(Continued from page 351)

this College to put on as an elective course, a course in the essential technic and basic principles of nursing the sick.

Motion seconded.

Dr. Benson: I would like to get a little more information as to this course. Is it preparatory for training nurses?

Dr. Miller: No. A girl goes to the Georgia State College for Women and she can elect to take this course in the basic principles of nursing the sick which she can later employ in the care of her own sick.

Motion carried.

ELECTION OF COUNCILLORS

Dr. A. G. Fort, Chairman of Nominating Committee presented the report, as follows:

First District: W. H. Myers.

Second District: C. K. Sharp.

Third District: G. Y. Moore.

Fourth District: O. W. Roberts.

Dr. Miller: I move that the Councillors as nominated by the Committee be elected. Motion seconded and carried.

Dr. Miller: I offer an amendment to the by-laws that in Article IX, Section 3, the words, "provided they are present" be stricken from the article.

The President: That has to lay over for another year.

Dr. McCurry: The Committee on Public Policy and Legislation wishes to submit as a supplementary report, the following recommendations:

I. That the Medical Association of Georgia memorialize the General Assembly of Georgia and urge that the special occupation tax on private hospitals be abolished.

II. That the Committee be instructed to study during the next year the advisability

of the requirement of annual registration of all persons in Georgia who are engaged in the practice of any branch of the healing art.

III. That the House of Delegates authorize the Committee to draft and have introduced into the General Assembly a "Marriage Relations Act," to provide for the requirement of physical examination of all persons contemplating matrimony, and that the Committee be authorized to incur such expense in the preparation of such Act as the Council of the Association may deem necessary.

IV. That the General Assembly of Georgia be memorialized to amend the Workmen's Compensation Act removing the present limit for which compensation is allowed to thirty days and \$100.00, so that there shall be no limit to the time or cost of treatment of the injured employee other than a reasonable time and expense.

The report was read in sections and each section presented for approval.

It was moved, seconded and carried that Section I be adopted.

It was moved that Section II be adopted. Motion seconded.

The motion to adopt the recommendation in Section II was carried.

Section III was then read and a motion made to adopt the Section after striking out the words, "And the Committee be authorized to incur such expense in the preparation of said Act as the Council of the Association may deem necessary."

Motion seconded and carried.

Section IV was read and a motion made to adopt the recommendation. Motion seconded and carried.

Dr. McCurry: I move the adoption of the report as a whole. Motion seconded and carried.

The Secretary: We have a request from the members of this Association in Houston and Peach Counties, for a new charter. They desire to give up their old charter of the Houston County Medical Society and to acquire a new charter for the Houston-Peach County Society.

Dr. Benson: I move that the request be granted.

Motion seconded and carried.

Dr. C. W. Roberts: I move that the Medical Association of Georgia through its Secretary express to Dr. E. A. Hines our appreciation of his sacrifice of time consumed in coming to us and our appreciation of the excellent contribution made to our scientific program.

Motion seconded and carried.

Dr. Dancy: It seems fitting at this time to express our heartfelt thanks and appreciation to all the people of Athens, the medical

profession, the Ladies Auxiliary, the hotels and all others which are usually included in such a motion for their kindness and hospitality to us since we have been here.

Motion seconded and carried.

Dr. Clark: Is it the desire of this body to report the proceedings of this meeting to the general body for ratification? If so, we must adopt the minutes.

Dr. Anderson: I move that the minutes of this present session be approved without being read.

Motion seconded and carried.

Dr. Miller: I move we adjourn.

Motion seconded and carried.

The House of Delegates adjourned *sine die* at 9:20 A.M.

ALLEN H. BUNCE,
Secretary-Treasurer.

District and County Societies

District Editors

- | | |
|---------------------------------|-------------------------------|
| 1. Long, W. V., Savannah. | 7. McCord, M. M., Rome. |
| 2. Watt, C. H., Thomasville. | 8. Carter, D. M., Madison. |
| 3. Greer, Chas. A., Oglethorpe. | 9. Bennett, J. C., Jefferson. |
| 4. Peniston, Joe B., Newnan. | 10. Ward, C. D., Augusta. |
| 5. Camp, R. T., Fairburn. | 11. W. F. Reavis, Waycross. |
| 6. Thompson, O. R., Macon. | 12. Cheek, O. H., Dublin. |

1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.
2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926.
3. Dougherty County, Dr. I. M. Lucas, Albany, Dec. 15, 1926.
4. Chattooga County, Dr. W. B. Hair, Summerville, Dec. 16, 1926.
5. Macon County, Dr. F. M. Mullino, Montezuma, Dec. 30, 1926.
6. Lamar County, Dr. Jno. M. Anderson, Barnesville, January 6, 1927.
7. Turner County, Dr. J. H. Baxter, Ashburn, January 13, 1927.
8. Pike County, Dr. M. M. Head, Zebulon, January 25, 1927.
9. Rabun County, Dr. J. A. Green, Clayton, January 27, 1927.

10. Murray County, Dr. E. H. Dickie, Chatsworth, January 27, 1927.
11. Taylor County, Dr. J. C. Hind, Reynolds, January 29, 1927.
12. Jasper County, Dr. E. M. Lancaster, Shady Dale, February 9, 1927.
13. Terrell County, Dr. Logan Thomas, Dawson, February 24, 1927.
14. Butts County, Dr. J. Lee Byron, Jackson, March 30, 1927.
15. Franklin County, Dr. Stewart D. Brown, Royston, April 11, 1927.
16. Ware County, Dr. K. McCullough, Waycross, April 12, 1927.
17. Wayne County, Dr. M. N. Stow, Jesup, April 12, 1927.
18. Stephens County, Dr. C. L. Ayers, Toccoa, April 18, 1927.
19. Barrow County, Dr. W. L. Mathews, Winder, September 24, 1927.

1928 HONOR ROLL

1. Randolph County, Dr. G. Y. Moore, Cuthbert, September 20, 1927.

FIRST DISTRICT MEDICAL ASSOCIATION

Mid-summer meeting was held at the DeSoto Hotel, Wednesday, July 27, 1927, at Savannah.

Meeting was called to order at 10 A.M. by President, Dr. Wm. R. Dancy.

Invocation by Rev. Walter Anthony, Savannah.
Address of Welcome by Dr. E. R. Corson, Savannah.

Response to Address of Welcome by Dr. J. W. Daniel, Claxton.

The following papers on the scientific program were read:

Habit Formation in Children by E. N. Gleaton,

M.D., Savannah. The author being at the National Guard Training Camp the paper was read by Lawrence Lee, M.D., Savannah. Discussed by Drs. V. H. Bassett, A. J. Mooney, R. L. Miller and Theodore Toepel.

Use of Diathermy by L. W. Williams, M.D., Savannah. Discussed by Drs. W. M. Bryan and M. T. Benson.

Breast Tumors by A. J. Mooney, M.D., Statesboro. Discussed by Drs. W. A. Norton, L. F. Lanier, Chas. Usher, Lee Howard, Allen H. Bunce, W. M. Bryan, W. B. Crawford and J. K. Quattlebaum.

Anterior-Poliomyelitis-Lantern Slides, by F. L.

Fort, M.D., Jacksonville, Florida. Discussed by Drs. Lawrence Lee, Ralston Lattimore, H. T. Exley, Theodore Toepel, L. F. Lanier and W. A. Mulherin.

Medical Education by J. E. Paullin, M.D., Atlanta.

Dr. Paullin discussed the proposed Abner Wellborn Calhoun Lectureship Endowment and the following resolution was unanimously adopted:

Resolved, That the First District Medical Association heartily endorse the movement to raise a sum of money to endow "The Abner Wellborn Calhoun Lectureship" to be presented to the Medical Association of Georgia.

Address by W. A. Mulherin, M.D., Augusta, President of the Association. Dr. Mulherin stressed the importance of the passage of the Basic Science Bill and the amendment to the Medical Practice Act. Dr. Wm. H. Myers, Savannah, moved that a committee be appointed to draw resolutions endorsing the Basic Science Bill and the amendment to the Medical Practice Act. Dr. Wm. R. Dancy, President of the First District Medical Association, appointed Drs. R. L. Miller, L. F. Lanier and C. F. Holton. The resolution as drawn and approved was as follows: The First District Medical Association in meeting at Savannah on July 27, 1927, earnestly request and urge the members of the Legislature now in session to act favorably on the Basic Science Bill and the amendment to the Medical Practice Act. The Committee suggested that a copy of the resolution be sent to the Speaker of the House, President of the Senate and to the Chairmen of the following committees: Judiciary No. 1, Hygiene and Sanitation from the Senate; Hygiene and Sanitation from the House. Copies of the resolution were sent by the Secretary as suggested.

Fractures by M. J. Egan, M.D., Savannah. Discussed by Drs. Wm. H. Myers and A. J. Mooney.

Blood Transfusion and the Direct Method by Tayloe Compton, M.D., Savannah. Discussed by Drs. Wm. H. Myers, J. K. Quattlebaum and Lawrence Lee.

The Care of the Normal Obstetrical Case by L. F. Lanier, M.D., Rocky Ford. Discussed by Dr. M. T. Benson, Atlanta.

The Present Interpretation of Blood Pressure by Ralston Lattimore, M.D., Savannah, was not read by request of the essayist on account of lack of time.

On motion of Dr. R. L. Miller letters of condolence were sent to Mrs. T. C. Thompson, Vidalia, and Dr. Cleveland Thompson, Millen, conveying the sympathy of the members of the Association in the death of their husband and brother, Dr. T. C. Thompson.

The visiting physicians were entertained by the Georgia Medical Society with luncheon at the DeSoto Hotel and a motor trip, surf bathing and a banquet at Tybee.

The Program Committee: Drs. J. K. Quattlebaum, Chairman; Cleveland Thompson and A. J. Mooney.

Entertainment Committee: Drs. Wm. H. Myers, C. F. Holton and E. J. Whelan.

Officers elected for the ensuing year: L. F. Lanier, Rocky Ford, President; Wm. H. Myers, Savannah, First Vice-President; Geo. W. Elarbee, Daisy, Second Vice-President; W. V. Long, Savannah, Secretary-Treasurer.

The Association gave Dr. Wm. R. Dancy a rising vote of thanks for his efficient administration as President.

Dr. Dancy in behalf of the members thanked the management of the DeSoto Hotel for the use of the meeting room and the Georgia Medical Society for its excellent entertainment.

The Mid-Winter meeting of the Association will be held at Waynesboro.

W. V. LONG, M.D., Secretary.

MINUTES OF THE TENTH DISTRICT MEDICAL SOCIETY MEETING

ACADEMY OF RICHMOND COUNTY, AUGUST 24, 1927

The meeting was called to order at 10:15 A.M. by Dr. C. S. Jernigan, president. Assisting Dr. Jernigan in presiding was Dr. W. A. Mulherin.

The scientific meeting was speedily got under way, the first paper being read by Dr. E. C. Thrash of Atlanta. Dr. Thrash's subject was "The Importance of Correlating Etiology, Pathology and Function in Cardiac Disease." In the absence of Dr. E. E. Murphey the discussion was led by Dr. W. J. Cranston. Others who took part in the discussion were Dr. J. D. Gray, S. R. Reville, J. W. Daniel and C. C. Harrold.

The second paper was read by Dr. C. C. Harrold of Macon, his subject being "Benign Strictures of the Esophagus." The discussion was led by Dr. C. W. Crane. Others taking part were Dr. F. G. Waites and Dr. W. H. Goodrich.

The third paper was entitled "Some New Obstetrical Procedures." The author was Dr. L. H. Wright of Augusta. The discussion was led by Drs. J. A. Akerman and Marion T. Benson.

Dr. William Weston of Columbia, S. C., next read a paper entitled "Food as a Factor in Preventive Medicine." This paper was discussed by the following: Drs. N. Overby, W. A. Mulherin, Theo. Toepel and J. W. Daniel, Dr. Overby leading.

Dr. Allen Bunce of Atlanta, in presenting his subject, "Diagnosis and Treatment of Pernicious Anæmia," had present a patient of his, a gentleman from Statesboro, who was described as a clinical cure following treatment with a diet of calves' liver. The discussion was by Drs. Reville and Weston.

Dr. John W. Daniel of Savannah, read a paper

entitled "The Value of Metabolic Chemistry to the Surgeon." This paper was discussed by Dr. John Wright and by Dr. Ralph Chaney.

The concluding talk was made by Dr. W. A. Mulherin, who took for his subject "Medical Organization."

The scientific session was immediately followed by a brief business session, during which officers for the coming year were elected. Dr. W. J. Cranstons was nominated for president by Dr. Montgomery, Dr. Mulherin seconding the motion. Dr. Cranstons was elected. Dr. S. R. Reville of Louisville, was elected vice-president, but stated he was not a member of the society, as his dues were not paid. He was told if he went to the barbeque and paid for his dinner he was a member in good standing, as he lived in the district. This nipped in the bud a move to elect some one else for vice-president, some present thinking Dr. Reville ineligible. Dr. C. D. Ward, re-elected secretary.

A vote of thanks was extended to all committees that took part in facilitating the progress of the meeting.

The meeting adjourned at 2 P.M., the members making their way to Carmichael's Club for the social meeting with the ladies' auxiliary, and barbeque dinner.

F. L. LEE, M.D.,
Secretary.

753 Broad St.

BOOKS RECEIVED

Manual of the Diseases of the Eye for students and general practitioners by Charles H. May, M.D., Director and Visiting Surgeon, Eye Service, Bellevue Hospital, New York, 1916 to 1926; Consulting Ophthalmologist to the Mt. Sinai Hospital, to the French Hospital, to the Italian Hospital, New York, and to the Monmouth Memorial Hospital; Formerly Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York. Twelfth Edition Revised. Containing 445 pages with 374 Original Illustrations, including 23 Plates, with 73 Colored Figures. Publishers: William Wood & Company, 51 Fifth Avenue, New York. Price, Cloth, \$4.00.

A Text Book of Histology arranged upon an Embryological Basis by Frederick T. Lewis, M.D., Associate Professor of Embryology at the Harvard Medical School and J. L. Bremer, M.D., Associate Professor of Histology at the Harvard Medical School. This is a revision of the Second Edition of Lewis and Stohr's Textbook of Histology, based on the fifteenth German Edition of Stohr's Histology. Contains 551 pages with 485 illustrations, 32 of which are in colors. Publishers: P. Blakiston's Son & Co., 1012 Walton Street, Philadelphia, Pennsylvania.

BOOK REVIEW

Clinical Pathology—In Relation to Modern Diagnosis and Treatment. By Robert John Stewart McDowell, Professor of Physiology, King's College, University of London.

At a recent gathering of physicians, one of the speakers said: "I am studying more physiology now than I did during my years at college and I advise my hearers to procure modern publications on physiology in order to practice medicine more efficiently." This book is one of these modern physiologies. It presents the facts of physiology and their application in general medicine in a form which fits in conveniently with pathological and clinical teaching.

The book is primarily intended for senior students and practitioners of medicine, whose busy lives do not permit their reading more exhaustive monographs, but who are yet eager to familiarize themselves with the physiological principles upon which so many of our modern methods of diagnosis and treatment are based.

There are forty chapters of interesting reading matter and subjects such as: Elimination of Toxic Products, The Pathways of Sensation, Postural Reflexes and Co-Ordination, The New Psychology in Its Relation to Therapeutics, The Effect of Hemorrhage and Allied Conditions, Respiratory Efficiency, Oxygen Therapy, Basal Metabolism, Vitamins, Body Weight, The Maintenance of Body Neutrality, Exercise and Rest, The Balance of the Endocrine Glands are worthy of special note.

Published by D. Appleton and Company, 35 W. 32d Street, New York City.

TOEPEL.

Symptom Diagnosis by W. M. Barton, A.M., M.D., F.A.C.P., and W. M. Yater, A.B., M.D. Published by D. Appleton & Co., 1927.

A compend of differential diagnosis that may be used to advantage as an outline or general reference text.

There are two parts. The first, under original headings, groups prominent clinical symptoms and their meanings in indexed chapters. The second part deals with the causes of general symptoms such as abnormalities of blood pressure, lesions of the skin, causes of coma, constipation, diarrhoea, etc. The subject matter is well indexed and classified.

R. S. LEADINGHAM, M.D.

SOUTHERN MEDICAL ASSOCIATION MEETING

MEMPHIS, NOV. 14-17, 1927

Georgia State Association of Graduate Nurses

OFFICERS

President.....	Miss Lucy M. Hall, R.N. 522 East 40th St., Savannah, Ga.	2nd Vice-President.....	Miss Mae E. Burges, R.N. 1108 East Henry St., Savannah, Ga.
1st Vice-President.....	Miss Margaret E. Dorn, R.N. 1117 Telfair St., Augusta, Ga.	Secretary.....	Mrs. Alma E. Albrecht, R.N. Georgia Infirmary, Savannah, Ga.
Treasurer.....	Miss Jane VanDeVrede, R.N. 105 Forrest Ave., N.E., Atlanta, Ga.		

ALL ABOARD FOR THE CONVENTION!

As we turn our faces toward the beginning of our school year and the fall activities, we think of our State Association convention, to be held in Macon, November 8 to 10. We may expect the largest and best meeting ever held by the nurses of Georgia.

There are so many things to rejoice over, and so many splendid plans for the future to be discussed, that members of the State Association may well feel a great incentive to come together and "talk it all over!"

Then, Macon is so centrally located and geographically accessible that practically every nurse can be excused from duty long enough to spend one, two or three days as the guest of the Third District nurses, and the Chamber of Commerce, representing this charming city of hills!

Macon is an ideal convention city, located as it is within six miles of the actual center of Georgia, and a natural hub for the five railroads which bring in 96 passenger trains daily, and for the many splendidly paved roads leading out of and into Bibb and other counties adjacent.

It is called "The city of opportunity" and deserves it. It is surrounded by millions of bearing peach, pecan and other trees, extensive forests of hardwood, thousands of acres of cotton, and is the center of inexhaustible deposits of clays, kaolins and other mining products. Its manufactures run annually well up into the twenty millions, and it is a wholesale distribution and cotton concentration point.

Educationally, Georgia may well take pride in Macon. Four colleges, including the oldest woman's college in the world—Wesleyan—are situated in this central city. Macon has a well

equipped and ideally situated hospital, as well as a number of private institutions of excellent facilities for caring for the sick. Its school nurses keep the children well.

The Third District has done excellent work this year under the leadership of its President, Mrs. Mae M. Jones. It has increased its membership and organized new alumnae associations.

Every alumnae should send a delegate to the convention. Every school should send a student nurse, and all the members who can by bus, train or Ford should be present at the twenty-first meeting, which completes twenty full years of organization work of the Georgia State Nurses' Association.

To those having attended previous conventions in Macon, nothing need be said of the genuine satisfaction realized in meeting there; and to those nurses who go to the central city for the first time, it is only necessary to say that, by virtue of having played host to so many convention groups, Macon "knows how!"

Program

Miss Lillian Alexander, Chairman of the Program Committee, promises a fine program. In tentative form it includes:

TUESDAY, NOVEMBER 8

10:00 A.M. to 2:30 P.M. Registration.

11:00 A.M. Executive Board Meeting.

1:30 P.M. Advisory Council Meeting.

2:30 P.M. Open meeting. A "good will" meeting, bringing messages of absent nurses and nurses who have helped to make the Georgia State Nurses' Association a success. Roll Call and reports of Districts, Alumnae Associations, Officers and Committees.

The evening meeting will be an open meet-

ing, in the interest of nursing as a community service, viewed from the standpoint of the doctor, the nurse and the patient.

We will have with us the President of the Medical Association of Georgia, and Miss Janet Geister, Director of National Headquarters of the American Nurses' Association. Miss Geister is known country wide for her contributions to the present status of nursing, and as Nurse Advisor to the Committee on the Grading of Nursing Schools.

The morning session of the 9th will be given over to the State League of Nursing Education. The program will center on the Education of the Nurse in the Small Hospital. The development of affiliated courses and extra mural instruction.

The business meeting of the League will follow the program.

The afternoon session will be devoted to the interests of the Private Duty Nurse.

Miss Luey B. Wright, Georgia's own missionary to China, will be present to tell us of some of the conditions there.

The evening of the 9th will be given over to social functions.

The morning of the 10th will be devoted to the S. O. P. H. N. Some very interesting papers have been promised, and we hope to have Miss Ada T. Graham of South Carolina with us, as well as Mrs. Myra Cloudman of the Athens Child Health Demonstration, and the Red Cross Field Nursing Representative.

Macon and the Third District promise us a number of social features, including a tea by the Auxiliary of the Medical Association. It is rumored that the doctors themselves have a surprise to spring. No nurse can afford to miss this convention. If you are a member, it is your obligation; if you are not, it is your privilege to become one!

The Dempsey Hotel will be Headquarters.

Executive Board Meeting

The Executive Board of the Georgia State Nurses' Association held a meeting September 14, to arrange for the State Convention. It was voted to appropriate \$50.00 a year for five years to the Grading Committee, in addition to amounts from Alumnae, Districts and individual contributions.

A luncheon was given at Rich's Tea Room in honor of Miss Bessie Kempton, Represen-

tative for Fulton County, who presented the Nurses' Bill to the General Assembly. The officers of the First District were invited to attend also.

Alabama State Meeting

The Executive Secretary attended the Alabama State Nurses' Association, and the Alabama Hospital Association, and read papers at both—one on "Some Essential Occupations for Women," the other on "Developing Community Resources for the Small Hospital."

Committee on Public Instruction

The Committee on Public Instruction of the Medical Association of Georgia is calling a meeting of representatives of the State Board of Health, the State Tuberculosis Association, the State Nurses' Association and the Health Officers' Association of Georgia to meet at a joint session at the Academy of Medicine in Atlanta, 38 Prescott St., N.E., Friday morning, October 7, 1927.

All these bodies are interested in better health of the citizens of the state of Georgia. The topics under discussion to be presented are:

- (1) The Relation of the Physician to Public Health.
- (2) The Relation of the Graduate Nurse to the Medical Profession.
- (3) The Relation of the Public Health Worker to the Medical Profession.

HORMONES

In the work of metabolism the hormones contributed by the various ductless glands—the endocrine chain—play the chief role. The hormone of the suprarenal gland is credited with two distinct functions; it stimulates the glycogenolytic function of the liver, and it either stimulates the sympathetic system of nerves or duplicates the effect of such stimulation on the body.

This hormone is known among physicians everywhere as adrenalin. It is the first hormone ever isolated from any of the glands of internal secretion. Parke, Davis & Co., who discovered it on the advent of the twentieth century, gave it the name adrenalin, signifying its derivation from the adrenal or suprarenal glands.

Woman's Auxiliary Medical Association of Georgia

OFFICERS

President.....	Mrs. Paul Holliday, Athens	President-Elect.....	Mrs. C. C. Hinton, Macon
1st Vice-Pres.....	Mrs. Marion T. Benson, Atlanta	2d Vice-Pres.....	Mrs. Wm. R. Dancy, Savannah
3d Vice-Pres.....	Mrs. H. L. Rudolph, Gainesville	Cor. Sec.....	Mrs. Guy O. Whelchel, Athens
Rec. Sec.....	Mrs. J. A. Selden, Macon	Treasurer.....	Mrs. Stewart D. Brown, Royston
Parliamentarian.....		Mrs. James N. Brawner, Atlanta	

Delegates to A. M. A.

Mrs. C. W. Roberts.....	Atlanta	Mrs. H. M. Fullilove.....	Athens
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Delegates to S. M. A.

Mrs. T. L. Holcombe.....	Union Point	Mrs. Frank K. Boland.....	Atlanta
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Alternates

Mrs. Dan Y. Sage.....	Atlanta	Mrs. Chas. E. Waits.....	Atlanta
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EIGHTH DISTRICT LADIES' AUXILIARY MEETING

The visiting ladies were met at the Samuel Elbert Hotel by a committee, after which they were taken to the Harris Allen Library where the auxiliary session was held.

LADIES' RECEPTION COMMITTEE

Mrs. B. B. Mattox
Mrs. J. E. Johnson
Mrs. A. C. Smith
Mrs. O. B. Walker
Mrs. D. N. Thompson
Mrs. Walton Johnson
Mrs. A. S. Johnson
Mrs. D. V. Bailey

*Program Third Annual Meeting, Woman's
Auxiliary Medical Association of Georgia*

First Baptist Church

Elberton, Ga., Wednesday, Aug. 10, 1927
Music.

Invocation—Dr. W. A. Wray.

Address of Welcome from City and County
—Mrs. Charlie Herndon.

Address of Welcome for Elbert County
Auxiliary—Mrs. A. S. Johnson.

Response from Eighth District Auxiliary—
Mrs. Stewart D. Brown, Royston, Ga.

Music—Mrs. Thomas D. Scymour.

Pellagra—Dr. B. B. Mattox.

Mental Hygiene Clinic as Conducted in El-
berton Public Schools—Miss Frances Hall,
R. N.

Message from State Auxiliary—Mrs. Paul
L. Holliday, State President.

Business.

Adjournment.

MRS. D. V. BAILEY, Mgr. Eighth Dist.

MRS. D. N. THOMPSON, Acting Secy.

After a barbecue dinner we visited the silk
mills.

CLARK COUNTY

The Woman's Auxiliary of Clark County Med-
ical Society elected the following officers: Mrs.
H. M. Fullilove, Athens, president; Mrs. Dan
DuPree, Athens, vice-president; Mrs. Carl Holli-
day, Athens, secretary-treasurer.

The Woman's Auxiliary of the Eighth District
will meet at Elberton on August 10.

Athens, Ga., September 7, 1927.

SUGGESTIVE MONTHLY PROGRAMS FOR THE COUNTY AUXILIARIES MEDICAL ASSOCIATION OF GEORGIA

OCTOBER

Study and sell Hygeia, published by Amer-
ican Medical Association.

NOVEMBER AND DECEMBER

Adult yearly physical examination both
white and colored. Select a doctor, member
of your county society, to lecture on this mat-
ter. Collect information and convince your
auxiliary of its importance. Secure form
blanks from American Medical Association.

Where communicable diseases are found get
doctors to report them to Board of Health
and insist on Board of Health having ade-
quate quarantine laws.

Venereal diseases. Have doctors report them
and if patients refuse treatment have them
forcibly treated as provided by law.

JANUARY

Housing and Sewerage (Sanitary Toilets).
Laws and how they affect health.

Refer to Board of Health.

FEBRUARY

Toxin Anti-Toxin, Typhoid Serum, Small Pox vaccination, both colored and white children, by family physician.

MARCH

(a) Milk. Milk standards, why necessary and what milk standard your community needs. How are those needs being met.

(b) Water. City water supply, wells, and swimming pools.

(c) Meats. Inspection of markets and abattoirs.

(Get information from the Board of Health.)

APRIL

Ellis Health Law. Provides for a health officer in each county. If law is not working in your community, go before Grand Jury and ask for it.

Endorsed by Health and Public Instruction Committee of The Medical Association of Georgia.

MRS. PAUL L. HOLLIDAY,
President Woman's Auxiliary,
Medical Association of Georgia.

NEWS ITEMS

Dr. J. C. Patterson, Cuthbert, and Dr. Grady N. Coker, Canton, have been elected Fellows of the American College of Surgeons and the Fellowship degree will be conferred at the meeting in October at Detroit, Michigan.

Dr. R. E. McClure, Quitman, Commissioner of Health for Brooks County, shows in his annual report of health work that he visited 103 cases of communicable diseases, 2081 children were examined, 1914 given complete anti-typhoid vaccinations, 1290 toxin anti-toxin and 385 cases treated for hook worm, at a cost of \$4,967.01.

Dr. G. Y. Moore, Cuthbert, Secretary of Randolph County Medical Society and Councillor of the Third District, on September 20th, reported Randolph County 100% paid up membership which entitles them to the first place on the Honor Roll for 1928.

State Board of Health, Atlanta, announces a new plan for the distribution of diphtheria anti-toxin and states that "Any person receiving a consignment of anti-toxin from the State Board of Health will be held strictly accountable for each and every package" and that with each consignment an envelope containing a number of certificates corresponding with the number of packages will be included and that each certificate must be signed by the doctor, ordinary or health officer and when supplied to a physician both original consignee and the doctor or officer receiving same to

sign the certificate and when used for a charity patient, the patient or representative shall sign same; and if used for any one able to pay for medical service the purchase price to be remitted to the State Board of Health with the certificate attached.

The Sixth District Medical Society will meet at Griffin on Wednesday, November 30, 1927, as the guest of the Spalding County Medical Society. An interesting scientific program has been arranged.

The American Board of Otolaryngology will hold an examination at Memphis, Tennessee, on Monday, November 14, 1927, the first day of the Southern Medical Association session. For further information address Dr. W. P. Wherry, 1500 Medical Arts Building, Omaha, Nebraska.

Dr. Iverson C. Case announces the opening of his offices at 105 Forrest Avenue, N.E., Atlanta, practice limited to Orthopedics.

Dr. E. D. King, Jr., Valdosta, attended the Reserve Officers Training Camp at Fort Oglethorpe. He was on the program for one lecture and exhibited lantern slides several times illustrating his work as meat and milk inspector for Valdosta.

The Georgia Tuberculosis Association announces the addition of Miss Mildred Manson to its staff. She will work in Atlanta and Fulton County schools and will later visit schools throughout the state concentrating her efforts on young people of high school age and will be in active charge of summer training courses next year.

Dr. Eugene B. Elder, formerly superintendent of the Georgia Baptist Hospital, Atlanta; has removed to Lakeland, Florida, and is now General Superintendent and Business Manager of two municipal hospitals and superintendent of the Morrell Memorial Hospital of Lakeland.

Drs. J. C. and Trimble Johnson announce the association of Dr. J. Lewis Pierce. Offices continued in the Doctors Building, 436 Peachtree St. and practice limited to internal medicine.

The Macmillan Company, Publishers, 60 Fifth Avenue, New York City, are mailing to all interested, upon request, their new 1927 edition of their famous catalogue, "Macmillan Books for Boys and Girls." This is a list of the best books for reading by boys and girls and is becoming a standard catalogue in a field where very little of this kind of literature is mailed free to the public.

Dr. C. S. Lentz, Superintendent of the University Hospital, Augusta, read a paper on "Rela-

tions of the Hospital, Physician and Community" at a recent meeting of the Richmond County Medical Society. Dr. C. W. Crane led in the discussion.

Drs. Wm. R. Daney and Jno. W. Daniel, Savannah, were guests of the Tenth District Medical Society meeting held at Augusta on August 24. Dr. Daniel read a paper on the "Value of Metabolic Chemistry to the Surgeon."

Dr. Joe P. Bowdoin, Director of County Health Work, announces that the State Board of Health will furnish free sufficient toxin-antitoxin for two hundred immunizations to each county in Georgia.

Drs. Mixson & Bird's new hospital on Central Avenue, Valdosta, has been opened for the reception of patients with every convenience and modern equipment for diagnosis and treatment.

Dr. J. W. Wallace, Thomasville, Commissioner of Health for Thomas County, has been very active administering toxin-antitoxin.

The physicians of Waynesboro gave a free clinic for school children sponsored by the P. T. A. in charge of Mrs. Rose Hodgson, County Nurse.

Dr. B. G. Owens, formerly of Huntsboro, Alabama, has removed to Valdosta. He received his literary education at Emory University and graduated in medicine from Tulane University School of Medicine, New Orleans.

Savannah and Chatham County health departments report that there has not been a death from diphtheria in Chatham County in more than eighteen months. This result is largely due to the diphtheria immunization of eleven thousand children.

The Ninth District Medical Society held its semi-annual meeting at Gainesville on September 21st.

Mrs. Frank Hames, 168 Howard Street, S.E., Atlanta, Manager for the Spencer Surgical Supports, carries with us in this issue change of copy of her quarter page ad and is prepared to correctly fit any and all patients.

The Georgia State Association of Graduate Nurses will hold its annual session at Macon in Hotel Dempsey, November 8th to 10th.

Dr. M. E. Winchester, Director of County Health Work, was the guest of Dr. O. H. Cheek, Dublin, recently.

Dr. H. J. Carswell, Waycross, was in charge of the pre-school clinic held in Waycross at the opening of the fall term of school.

Dr. John W. Mobley, a graduate of the University of Georgia Medical Department, Augusta, recently moved to Milledgeville and opened offices in the Doctors Building.

OBITUARY

Dr. James Allan Lee, Gardi, died at his home on August 31, 1927, after an illness of short duration. He was born in 1885 and had been engaged in the practice of his profession for about eighteen years. Dr. Lee was a member of the Wayne County Medical Society, the Medical Association of Georgia, the Masonic lodge and the Baptist church. He is survived by his widow, several children and many relatives. Funeral services were conducted from the Gardi Baptist church.

Dr. Thomas Davies Coleman, Augusta, died August 2, 1927, in a government hospital at Gulfport, Mississippi. He was born in Augusta on January 13, 1865, and graduated from the New York University Medical College in 1890 and took a post-graduate course at Johns Hopkins University School of Medicine, Baltimore. Dr. Coleman was at one time president of the Board of Health of the city of Augusta; past president of the Medical Association of Georgia; consulting physician at the University Hospital, Augusta; fellow of the American Medical Association and the American College of Physicians. Dr. Coleman served during the World War as Major in the Medical Corps. He is survived by his widow; two sons, Owen and John S. Coleman of Augusta; one daughter, Mrs. James Dunham, Buffalo, N. Y. Funeral services were conducted from the residence of 936 Hickman Road and interment in the city cemetery.

Dr. John K. Burns, Clarkesville, died at his home July 28, 1927. He was born in Banks county on November 7, 1860, and graduated from the University of Georgia, Medical Department in 1884. Dr. Burns was a member of the Masonic lodge, Medical Association of Georgia, president of the Habersham Bank and an elder in the Presbyterian church. He is survived by his widow, two daughters, Mrs. I. H. Sutton, Clarkesville, and Mrs. Troy Chastain, Atlanta; two sons, Dr. John K. Burns, Jr., Gainesville, and Mr. W. B. Burns, Clarkesville; two sisters, Mrs. Lou Little, Commerce, and Mrs. Mattie Long, Comer; two brothers, J. C. Burns, Maysville, and T. B. Burns, Florida.

Dr. Frank C. Folks, Waycross, died at his home August 6, 1927. He was born in Jefferson County, Georgia, October 13, 1852, and graduated from the Savannah Medical College in 1876. After graduation, he returned to Ware County and practiced medicine there until a few years ago. He was

mayor of Waycross for two terms and served his district as State Senator. He was a valuable citizen and as a token of the esteem in which the people held him, one of the largest parks in his home city bears his name. He was a member of the Ware County Medical Society, the Medical Association of Georgia, American Medical Association, Masons, Elks, and the Methodist church. Dr. Folks is survived by three sons, Dr. W. M. and Robert L. Folks of Waycross; two daughters, Mrs. P. K. Groff, Akron, Ohio; and Miss Louise Folks, Waycross. Funeral services were conducted from the residence of Rev. O. B. Chester, pastor of the First Methodist church and interment in Loti cemetery.

1668	1927	1818
MERCK & CO. INC.		
<i>Manufacturing Chemists</i>		
Successors to		
POWERS-WEIGHTMAN-ROSENGARTEN CO.		

The consolidation of Merck & Co. of New York and the Powers-Weightman-Rosengarten Co. of Philadelphia, under the name of Merck & Co. Inc., became effective on July 1. This action brings together chemical establishments the founders of which are identified with the very beginning of modern industrial chemistry, and whose products are known for their high standard of excellence wherever pharmacy, medicine, and chemistry are practiced.

Under the terms of the agreement the Merck interests predominate in the new company. George W. Merck, son of the founder of Merck & Co., is the president, and Frederic Rosengarten becomes chairman of the board of directors—an assurance that the high standards and proud traditions of the old companies will be maintained.

The main office of the new company is at Rahway, N. J.; the Philadelphia office at 916 Parrish Street; the New York office at 145 Front Street; branches at St. Louis and Montreal; works at Philadelphia and Rahway.

Merck & Co.'s origin was in an ancient pharmacy in Darmstadt, Germany, which came into the possession of Friedrich Jacob Merck in 1668, and which has remained in unbroken possession of the Merck family for 259 years. This was the nucleus of the great chemical establishment now known as E. Merck, Darmstadt. Heinrich Emanuel Merck took over the pharmacy in 1816, and as the intimate friend and collaborator of the great chemist Liebig started it on the road from pharmacy to factory.

The preparation of pure alkaloids was the main aim of the founder of the Merck factory and his achievements include the original manufacture, on a commercial scale, of morphine in 1827, codeine in 1836, and cocaine in 1862.

In 1891 George Merck, a son of one of the heads of the Darmstadt concern, came to the United States, to become associated with the American agency for the old house, and eventually to found the American house of Merck & Co.

At their factory in Rahway Merck & Co. eventually manufactured morphine, codeine, cocaine and many other chemicals, including salicylates (aspirin, oil of wintergreen, salicylic acid), iodine preparations, bismuth salts, acetanilid, chloral, and prepared for the prescription counter almost the entire medicinal chemical requirements of the modern pharmacist.

The firm which eventually became Powers & Weightman was established in 1818 at Arch St. near 12th, in Philadelphia. Rosengarten & Sons were the outgrowth of a partnership formed in 1822 by two Swiss chemists who manufactured chemicals. The firm took over the plant and assets of Powers & Weightman in 1905 and became the Powers-Weightman-Rosengarten Co. of modern times. The founders and descendants of the company established and maintained research laboratories and won their way to a foremost place among the manufacturing chemists of the United States. They were among the first in America to produce and concentrate sulphuric acid, and among their first products were quinine and ether; later morphine, and subsequently calomel, bichloride of mercury and strychnine. Iodides, bismuths, codeine and silver salts followed. In modern times Powers-Weightman-Rosengarten Co. have been among the largest manufacturers in the world of quinine, citric acid, opium preparations and many other well known chemicals.

HORLICK'S MILK MODIFIER

A new product made by the Horlick's Malted Milk Corporation, Racine, Wisconsin, is now being introduced to the Medical Profession. This maltose and dextrin product, which is derived exclusively from malted grains, was first announced at the annual meeting of the American Medical Association in Washington, D. C., in June, and created much interest. Since that time it has been presented to convention gatherings in other parts of the country, and the Horlick representatives are now calling on individual members of the profession.

Horlick's Milk Modifier is presented and supplied to the profession along ethical lines. No feeding directions accompany the package. A statement on the wrapper is to the effect that the product is for prescription by physicians only.

In conformity with the Horlick policy, the Milk Modifier is put up in hermetically sealed glass jars only. The one-pound size retails at 75c and the five-pound jar at \$3.00. The fact that it carries the name "Horlick's" is a guarantee that only the finest materials are used.

In the June 18th issue of the Journal of the American Medical Association, under the heading of New and Non-official Remedies the acceptance of the Horlick Milk Modifier was announced by the American Medical Association. The product differs from the malt sugars in that it incorporates soluble and readily assimilable protein and valuable mineral salts from the grains. The Horlick firm points out this fact as a decided advantage for its product.

Another point which is mentioned as an advantage in favor of the new product is the proportion of its two chief carbohydrates, maltose and dextrin, which are 63% maltose and 19.5% dextrin.

The new Horlick formula apparently has met with pronounced success during a period of trial among physicians in Canada.

Samples of the new product, literature concerning its use, prescription blanks and file cards giving methods of preparation are available for members of the Medical Profession and will be sent upon request.

TO PREVENT RABIES

It is no longer necessary to send patients to Pasteur institutes for anti-rabic inoculations. Rabies Vaccine (Cumming) P. D. & Co., is superior in potency to the Pasteur method and may be administered by the physician in the office or at the home with no more technic or difficulty than an ordinary hypodermic injection. There is no gradation of dose; all doses are alike.

We understand that Rabies Vaccine (Cumming) P. D. & Co., is made by the method devised by Dr. James G. Cumming. A one per cent suspension of rabie brain tissue (from rabbits dying of rabies inoculated by an injection of fixed virus) is dialyzed against

running, distilled water until the infectivity of the virus is destroyed.

The safety of the finished product is assured by injecting this material beneath the dura of rabbits, and subcutaneously in guinea pigs and mice. Sterility tests are also utilized to insure freedom from bacteria. The vaccine is standardized by weight so that 2 cubic centimeters of suspension, the contents of one of the syringe containers, contains sufficient material for one injection for an adult. The safety and efficiency of Rabies Vaccine (Cumming) P. D. & Co., has been amply demonstrated by its employment in a large series of cases.

Parke, Davis & Company offer a 24-page illustrated booklet "Rabies Vaccine, (Cumming)," to any physician on request.

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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA

PUBLISHED MONTHLY under direction of the Council

Volume XVI

Atlanta, Ga., November, 1927

No. 11

RADIOLOGICAL INTERPRETATION OF BONE TUMORS*

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Thomasville

Before discussing the various tumors I will review the anatomy of bones. A normal bone is composed of several highly organized structures having various functions. Some of these structures are seen plainly on an X-ray plate and others only when diseased or in a pathological state. This is particularly true of the periosteum. The constituent parts of the bone vary according to its particular type and also according to its function. For example, some bones have a shaft and cartilaginous articulating surfaces, as the femur and tibia. Others, as the carpal bones have no shaft or periosteum but are irregular in shape and are entirely covered with cartilage.

The periosteum is very important as it is one of the bone producing elements, being a fibrous sheath and rich in blood vessels; these penetrating the cortex. In the young it is very thick and loosely attached but firmly adherent to the epiphysis; while in adults it is firmly attached to the shaft. When the periosteum is demonstrable on a plate it is always abnormal.

The cortex is below the periosteum and it is dense and hard. This is composed of bone cells imbedded in the masses of inorganic salts known as matrix. This dense bone is pierced by Haversian canals, to carry nutrition and many times play an important role in carrying disease to the bone. At the end of long bones the cortex expands and is very rich in blood and lymph vessels. The medullary canal is situated in long bones, and it is a cylindrical channel; it contains the marrow,

fat, nerves, blood, and lymph vessels. These elements do not cast a shadow. It emerges at the ends to form the cancellous portion.

Usually at the middle portion of the shaft is the nutrient foramina, an aperture which allows the blood vessel to enter the medullary canal. While this can not be demonstrated on the plate it is of vast importance as the metastatic growths gain entrance at this point.

Cartilage. This is a Hyaline sheath covering the ends of long bones. It is a dense, hard structure free of blood vessels. This is very interesting when studying infections but is never invaded by tumors.

DIAGNOSIS

1. The important question to decide in studying bone tumors is whether it is malignant or benign.

2. It is particularly important to determine whether it is of medullary or cortical origin and whether any soft tissue is involved;

3. To determine whether there is bone production or bone destruction and the condition of the cortex; and

4. Whether there is invasion.

5. Sex and age play an important part.

At first glance it is often impossible to determine all these points, but eliminate several by study and analysis. For instance if it can be shown that the tumor arises from the periosteum that automatically excludes carcinoma, as there are no primary epithelial cells in the bone. If an epithelial growth develops in the bone it must be carried there by the blood or lymph vessels. Therefore carcinoma must have its origin in the medullary canal. Again if it can be established that there is new bone in the tumor, that would automatically rule out round and spindle cell sarcoma. The diagnosis must be made upon fundamental facts of pathology which have been translated into shadows. The reasoning must be reversed and each pathological point

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

applied to the plate and they must fit in properly.

ANALYSIS OF THE CARDINAL POINTS

1. It is highly essential to determine from what part of the bone the tumor arises. As I have mentioned before carcinoma is always metastatic in origin and arises in the medullary canal. Sarcoma is of connective tissue origin, it may be either primary or secondary. Periosteal and osteosarcoma are cortical in origin as well as osteoma. The diagnosis is far from being made on this point alone but serves as an aid.

2. Bone production. It does not take in either carcinoma, round or spindle cell sarcoma, and giant cell sarcoma. Consequently if it can be established that there is bone production the above-named tumor can be eliminated. This will limit the tumors to osteoma, osteochondroma, periosteal, osteosarcoma and ossifying haematoma. Bone cysts are not bone producers, but many times when fractures take place, bone will be produced.

When it is determined that there is bone production the character of it must be studied and in what manner it is laid down. All bone producers are either cortical or periosteal in origin; and it is best studied as it extends into the soft parts and has free growth. In malignant growths the bone is laid down in stria perpendicular to the shaft. While in benign tumors it is parallel to the shaft with the exception of the osteoma. This cardinal point helps materially by the process of elimination but there still remains those tumors of medullary origin.

3. It must be ascertained whether the cortex is present or absent, and if present whether it is spherical or longitudinal. In the first and second cardinal points the tumors have been mentioned arising from the cortex and periosteum and the bone production mentioned; but it is well to check them up on the third cardinal point. Benign tumors arising in the medulla are slow growing and take the path of least resistance, that is, they grow slowly towards the cortex but do not destroy it. The expansion in benign tumors is always spindle shaped. In malignant growths the cortex expands in all directions and is spherical in shape on account of its rapid growth. Not only does it expand the cortex but it de-

stroys it. In early cases, however, this is not found but the patient does not present himself or herself for examination as there are no symptoms at this time. There is one exception to this in giant cell sarcoma due to the character of its cells, metastasis is almost impossible, so that it is practically benign.

4. Invasion. This point is hard to determine and it is by far the most important. Malignancy depends upon invasion. If it can be definitely established that the growth is invasive and that it infiltrates into the soft tissues, everything is determined. After determining the four cardinal points, it is well to study the probabilities as, age, sex, and law as to bone involvement.

First, age. It is known that certain tumors are common at certain ages and rare at others. Carcinoma is quite common after forty, while it is rare in children. Sarcoma may occur at any age but it is more common in the first and second age periods; therefore, a malignant tumor in the first age period would be a sarcoma.

Sex. It is known that carcinoma of the breast in the female at the third age period is by far the most frequent tumor, so in a female at this age any growth in the bone is most apt to be carcinoma in origin.

Law as to bone involvement. Carcinoma being metastatic in origin and sarcoma being either primary or secondary, a growth medullary in origin and in the middle of the shaft is in all probabilities carcinoma while sarcomas are generally in the ends of long bones, this being its favorite site.

MANNER IN WHICH MALIGNANCY AND BENIGN TUMORS GROW

When a malignant tumor starts in the medullary canal it grows by cell division, starting at a central point and equally in all directions, consequently, it is spherical in shape. It grows so rapidly that it destroys the cortex, the surrounding tissue and bone. The cortex does not have time to expand as in benign tumors. In infections like osteomyelitis the infection spreads by means of the Haversian canals, consequently destruction of bone occurs at different places with normal bone between, the cortex will not be destroyed en masse as in tumors. In osteomyelitis when the infection subsides there is new bone pro-

duction at the edges of the infected area, this nature's way in limiting the infection. This reaction does not take place in malignant growths.

In benign tumors it is just the opposite of malignancy, (that is, the medullary tumors). It grows slow, the cortex has time to expand and will travel up and down the shaft and is cylindrical in shape.

CHIEF CHARACTERISTICS OF SOME OF THE MORE IMPORTANT BONE TUMORS

Carcinoma. This is usually an old age tumor. It is always metastatic in origin and enters by means of the nutrient canal. It is most frequently seen in the middle portion of the bone. There is no bone production since it is of epithelial in origin. It grows very rapidly and equally in all directions. It destroys the cortex completely and shows signs of invasion. In the female carcinoma of the breast is most frequent and its metastasis are seen in order of its frequency in the ribs, thoracic spine, lumbar spine, ilium, femur, especially the greater trochanter, skull, and humerus.

It is rarely seen, in fact, in all the cases that I have seen or heard of, metastasis never took place below the knee or elbow. Carcinoma of the ovaries seldom metastasizes to the bone, the urinary bladder occasionally. In the male carcinoma of the tongue and lips are the most common and effects the mandible usually by direct extension. Carcinoma of the prostate is very common and usually metastasizes to the lumbar vertebra and ilium.

In carcinoma of the bone, pathological fractures often occur.

SARCOMAS

Round Cell. Like carcinoma it is very malignant and of medullary origin. It destroys the cortex and is invasive in character. It occurs at any age but is more common in the first and second age periods. The law of age and sex play an important part in determining it from carcinoma. However, it can originate primarily in the bone while carcinoma does not. The great majority of this type of sarcoma is near the ends of the bone, while carcinoma is near the nutrient canal.

Spindle Cell. It is very malignant but upon the film it does not appear to be very inva-

sive. It is medullary in origin and destroys the cortex.

Periosteal. It arises from the periosteum. It is a bone producer but the most of it is laid down in the soft tissues. The shaft and periosteum show very little destruction, but often gives a "worm eaten" appearance. It is the most characteristic of all the bone tumors, as the stria of bone is laid down in a peculiar fashion, it being perpendicular to the shaft. It is mostly seen in the first and second age periods. It gives metastasis to the lungs very quickly.

Osteosarcoma. This tumor arises from the cortex and is a bone producer. It also effects the bone and invades the soft tissue. Unlike the periosteal type the tumor destroys the shaft extensively. Of all malignant tumors the last two named are the only bone producers.

Giant Cell. It arises in the medulla. It is benign in character. It is composed of irregular cells and makes it almost impossible for metastasis or be carried away. It grows slow and expands the cortex but does not destroy it. The ends of long bones are its favorite sites.

Malignancy depends upon two factors. The ease that the cells are broken off and the presence of channels to carry same away.

Hypernephroma. This is a very rare tumor. It is of medullary origin. It is almost impossible to distinguish it from carcinoma. It does not metastasize to bone very readily but when it does it usually affects the bones of the upper extremity especially the humerus. It occurs in the beginning of the third age period.

Myeloma. It is a very malignant tumor. It is not seen very often. It does not grow as rapidly as some of the other malignant tumors. Its favorite site is the flat bones, especially the head and metastasizes to the long bones very readily. Pathological fractures often follow.

BENIGN TUMORS

Enchondroma or Osteochondroma. It is of cartilaginous origin and is generally seen before the epiphyses unite. These tumors are often recognized through the patient having a pathological fracture. The fractures readily unite but with the growth still present frac-

tures will occur again. It may either be cortical or medullary in origin. When medullary it expands the cortex in a cylindrical shape. There is no new bone formation unless a fracture has occurred. These tumors are supposed to arise from misplaced bits of cartilage proliferated throughout the bone especially around the epiphysis. These occur between the fifth and fifteenth year. Repeated fractures in children should cause some suspicion.

Cysts. They are usually seen at the same age as the enchondroma. Nearly always very close to the epiphysis. It is medullary in origin and extends up and down the shaft. The cortex is expanded but intact, and cylindrical in shape. It is sharply defined and may appear loculated but it is generally one large cyst. Cysts are single, while enchondromas are usually multiple.

Osteomas. They arise from the cortex and are almost solid bone with some small particles of cartilage. They extend out into the soft tissues but do not invade the bone, although they are attached to a large pedicle. They are usually seen in the first age period. Its favorite sites are the upper and of the humerus, lower end of the femur and the upper end of the tibia.

Exostoses. They arise from the cortex and having the same structure as the bone. There are two kinds, the "table top" type similar to a broad angled triangle, and the long pencilled type arising from the cortex at an angle and pointing away from the nearest epiphysis. They occur usually in the first and second age periods.

Fibromas. From an X-ray standpoint, they appear like a cyst.

Myomas. They also appear like a cyst. Sometimes they undergo malignant degeneration.

Hemangiomas. They are fluctuating tumors, and frequently invade the hands, feet, and the forearms. They are not primarily bone but there is a deposition of calcium salts in them. The examination shows them as large, soft tissue swellings with calcium rings within them.

Ossifying Hematoma. This does not belong to the tumor group as it is inflammatory in origin but is often clinically diagnosed as sarcoma. It usually occurs in children that have

scurvy. The periosteum being loosely attached, hemorrhage under same will cause a large swelling. These conditions may follow trauma. In these hemorrhages, calcium salts may be laid down in great abundance.

DISCUSSION ON PAPER OF DR. PARRY

Dr. F. G. Hodgson, Atlanta: These pictures are exceedingly interesting. I am sorry we did not have time to see them all.

The question of diagnosis is so important that we can not learn too much. We must be sure of the diagnosis before we sacrifice a patient's limb. We know the only treatment for these sarcomas is a very mutilating operation. No one is justified in sacrificing a patient's limb until he is sure of the diagnosis. The diagnosis of sarcoma is very difficult to make. It resembles very closely a syphilitic condition and it resembles very closely osteomyelitis. If we make a mistake and amputate a limb and then find the tumor is not a sarcoma it is a very serious matter. Every means should be exhausted to make a correct diagnosis before we remove a patient's limb.

I note that the terms round cell, giant cell and spindle cell sarcoma were used. The most recent classification of sarcomas differs from that. Giant cell sarcoma has proven to be a rather benign tumor, and Dr. Bloodgood insists on calling it a giant cell tumor instead of a giant cell sarcoma. He thinks the term giant cell sarcoma should be abolished because it is not a metastasizing tumor and it is not malignant.

I am delighted to have seen these pictures.

Dr. L. D. Parry, Thomasville (closing discussion): Knowing that my time was limited I was unable to demonstrate the various tumors with my collection of slides.

In the beginning of my paper I stated that I was not attempting to classify tumors but rather call them by their more familiar names. In reference to the giant cell sarcoma, I consider it a benign tumor. The periosteal sarcoma in my mind is the most malignant of all bone tumors. When a diagnosis is made of this type, early amputation should be imperative. It metastasizes to the lungs as early as two weeks. Some time ago I made a diagnosis of periosteal sarcoma of the tibia and the parents hesitated in the treatment that was advised. They consulted various men in different cities and found that my advice was the proper procedure. They returned with the boy within six weeks and he already had metastasis to his lungs. I recite this case simply to show that when a diagnosis is made, early amputation is necessary.

DIAGNOSIS OF SYPHILITIC BONE LESIONS*

JAMES J. CLARK, M.D.
Atlanta

Frequent yet often unrecognized manifestations of syphilis are the bone and joint lesions accompanying this disease.

Such lesions, if noted, are often confused with other types of bone and joint pathology, and the patient thus deprived of the benefits of rational treatment.

This paper will deal with the methods of diagnosing this type of infection, and a presentation of lantern slides illustrating the various types of lesions.

CLASSIFICATION OF TYPES

In the available literature on this subject there are three types of syphilitic bone lesions described, namely:

1. Congenital, or hereditary. (a) Early.
(b) Late.
2. Acquired.
3. Tertiary.

THE CONGENITAL LESIONS

(a) Early. Congenital syphilis, as such, has been recognized more frequently in the last few years, especially since the advent of roentgenographic examination of the new born skeleton.

The most extensive syphilitic bone changes may occur in utero, as evidenced by findings at birth.

In this type of cases the lesion is present in two forms: (1) In the long bones with increased density at the diaphysis, and (2) Changes along the shaft, showing periosteal proliferation and cortico-medullary destruction. The skull, spine, and, in fact, all bones may be involved.

At the Emory University division of Grady Hospital in Atlanta we have examined 750 cases of new born babies. This included still births, as well as living babies.

These examinations were made at the re-

quest of Dr. J. R. McCord, of the Obstetrical Department, in conjunction with his studies of fetal syphilis.

As a result of these studies Dr. McCord made the following statement:

"My studies would seem to show that the lesions in the long bones, called Wegner's Disease, seem almost pathognomonic of fetal syphilis, and, with the exception of finding the organism in the stained tissue, are the most reliable aid. It is the one single examination that can be made almost anywhere, and the results of which are easily interpreted and thoroughly reliable."

We were surprised to find that the diaphyseal changes predominated greatly over the periosteal. The percentages were as follows:

Diaphyseal changes, 98%
Periosteal 2%

Continuing this study on older children, we note that the number showing diaphyseal changes decreases with age until at about twelve months the periosteal changes predominate.

We noted that at birth the diaphyseal changes were most frequent at the ends of the long bones, usually if present in one they were present in all.

The line of increased density seen at the diaphysis is due to changes in the calcification of the proximal cartilages and to abnormal arrangement of the osseous tissues. In the fetus the changes are confined to the epiphyseal junction except in the severe cases.

There is a definite sclerosis of bone at the diaphyseal line. The bone seems to have a very thick cap, due to increased calcification. The provisional calcified zone is much wider in hues than in the normal. This change may be confused with the pathology found in rickets, but the bone ends do not show saucer-shaped expansion as in rickets, nor is the diaphysis so irregular and tufted. The periosteal changes are secondary to the endochondral defect and take place after birth.

The skull may show maceration; there may be necrosis of the jaws; the vertebral bodies may be involved; the scapula and pelvis occasionally show bone destruction; the phalanges and shafts of the long bones often show definite bone changes.

These findings, checked by maternal and

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*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

cord Wassermans, and examination of the placenta and liver for spirochetes, have been proven to be definitely diagnostic of fetal syphilis.

Later other congenital bone lesions are noted and usually occur before ten years of age. The periosteal changes then become more pronounced than the diaphyseal.

The most common lesions found are periostitis, osteitis, and syphilitic osteomyelitis of the long bones.

At this time syphilitic arthritis, especially of the acute synovial type, is seen without definite roentgen bone changes, but with a swollen joint which responds to anti-luetic treatment.

Later congenital syphilis. "Syphilis hereditaria tarda" may be seen.

In this young class of patient, although most cases come from twelve to eighteen years of age, is the patient who inherits syphilis and may develop juvenile tabes.

Among the changes of syphilis tarda are osteitis of the long bones; osteoporosis and osteoclasia of the skull; and the "Charcot joint" of juvenile tabes; a neuropathic joint which is not primarily syphilitic, as it may be seen in syringomyelia and various other forms of cord degenerations. Sabre tibia is another frequent deformity.

THE ACQUIRED SYPHILITIC CHANGES

The acquired syphilitic changes are manifested in various ways, and can be classified under four heads:

- (1) Synovitis.
- (2) Arthritis.
- (3) Periostitis.
- (4) Osteomyelitis.

(1) Synovitis is frequent, the joint capsule being greatly distended; fluctuation pronounced; the patella riding high; very little pain or tenderness; slight disability; and practically no limitation of motion or muscle spasm. Roentgen signs are usually negative.

(2) Primary arthritis is rare; usually secondary in character; and due to direct extension of the shaft lesion. The synovia is thickened; slight muscle spasm is present; bone atrophy is pronounced; and there may be localized bone abscesses. The knee, spine, and elbow are frequent sites.

(3) Periostitis is not as frequent as in the late hereditary type, but may be present as an early sign of osteomyelitis. The bone is tender and suggests osteomyelitis clinically.

(4) Osteomyelitis starts as a periostitis and osteitis, and extends to the medulla with symptoms not unlike an ordinary osteomyelitis. The destruction is slow and by direct extension; we may or may not have pain. There are very slight systemic symptoms. The X-ray evidence of bone pathology is generally far in advance of the clinical symptoms, but the new bone production exceeds destruction. The onset is never acute. There may be a traumatic history, but this is an unreliable factor. The most important signs are as follows:

- (a) Slow onset.
 - (b) Marked bone changes on the film far in advance of the clinical picture.
 - (c) Slight systemic reaction when compared to the bone changes seen.
 - (d) Little pain.
 - (e) Bone repair more marked than bone destruction.
- (5) Tertiary joint changes. These may best be described under five headings, as the roentgen findings will usually group the case under one of them.

- (a) Arthralgia.
 - (b) Synovitis.
 - (c) Monoarticular arthritis, including Charcot joint.
 - (d) Tertiary syphilitic in congenital cases.
 - (e) Gummata.
- (a) In arthralgia we have no demonstrable roentgen signs.
- (b) In synovitis the joint is distended; very little pain complained of; no involvement of the shaft. Many joints are usually involved. The disease may disappear but return at intervals and become a permanent lesion.
- (c) The monoarticular arthritis resembles a tuberculous infection, but there is less pain. Both the joint and shaft may be involved with bone destruction and production present.

The Charcot joint, of neuropathic origin, is included in this group. It is a result of spinal syphilis or other cord lesions. The joint is swollen, often enormously; there is practically no pain; and the patient will con-

tinue to use the limb, walking with difficulty, and aggravating the deformity. The joint on palpation gives the impression of being filled with fluid and loose foreign bodies. Crepitation is marked. On the X-ray film we find tremendous joint destruction and erosion. There is marked atrophy, and many loose fragments of bone, as though they had been crumbled from the articular ends. Little evidence of repair is seen. The lesion may be single, but is often multiple. I have seen one case with five Charcot joints, involving the right ankle and right knee, left ankle, left elbow, and right wrist, who still continued his work as a wagon driver in spite of his crippling deformities. This patient had a definite tertiary syphilis. Dr. Joseph Yampolsky of Emory Clinic in 1925 reported a case we had of a Charcot joint in a 11-year old negro boy.

(d) Under class four of tertiary syphilis we also place congenital syphilis where we see cases showing osteochondritis at the junction of the epiphysis and the diaphysis (Wegner's Disease). We may have an acute epiphysitis.

Dactylitis, a painless swelling of the phalanx with excessive production of new bone surrounding the shaft and extending to the diaphysis, is occasionally seen. The changes rarely go beyond the diaphysis, a differential point when trying to distinguish between a luetic or a tubercular infection.

We may see the skull involved, with areas of bone destruction and production, presenting a spongy or moth-eaten appearance. This is frequently secondary to trauma and may occur in any bone of the body.

(e) The gummata are another late manifestation which, when seated in bones, gives certain almost characteristic appearances. The gumma is, of course, a result of the growth of the spirochete in bone; the organism may have been deposited there during the early stages of the disease, have lain dormant for many years and then under some stimulation, such as trauma, become active, with a resulting thickening and induration of tissue followed by causation of the center, and breaking down of the bone structure. This is most frequently noted around the nasal bones and in the skull. The skull will show rounded areas of bone destruction, almost suggesting

operative removal, so clear cut are the edges. The margins of the fenestra are a little increased in density. Unless the disease is stopped by appropriate treatment large areas may be destroyed.

DIFFERENTIAL DIAGNOSIS

There are not many bone lesions with which bone syphilis may be confused, but unfortunately these few lesions do in many cases offer many points in common with it.

We must realize that the X-ray film only shows variations in bone density, either decreased (atrophic) or increased (sclerotic) changes in the appearance of the bone. It requires careful study and in many cases search of other bones for possible lesions when a differentiation is attempted.

In adults the most frequent source of confusion is in osteomyelitis.

In cases from twelve to twenty-one we may have difficulty in deciding between syphilis and bone sarcoma.

In children study will be required to decide between syphilis, rickets, scurvy, and tuberculosis of joints.

To differentiate between syphilis and infectious osteomyelitis there should be a consideration of the history; the type of onset (acute or slow); the blood picture; the systemic reaction; study of the bone on the film, noting the amount of bone destruction and production (which of the two are predominating); a comparison of the patient's clinical picture with the bone lesion shown on the film; and oftentimes a study of the entire skeleton. The amount of pain in syphilis is apt to be slight.

A marked similarity may exist between periosteal syphilis and periosteal sarcoma, and the greatest care must be taken that a correct diagnosis is made before attempting amputation or other major operation which will result in a crippling of the patient, and which could have been avoided if proper treatment had been instituted. The bone in sarcoma shows a rapidly destructive process, with very little effort at repair. The periosteal changes are more of an irritative reaction, with the new growth of periosteal bone pointing perpendicularly to the shaft; while in syphilis the periosteal bone growth is more lamellated in appearance, and tends to unite with the shaft at the margins of the disease.

In children with inflamed joints it is extremely difficult in early cases to decide whether we are dealing with syphilis or a tubercular infection. The tubercular cases, however, generally show more pain, more muscle spasm, rapidly advancing atrophy, and marked systemic reaction early, while later the pronounced bone destruction without production differs so materially from syphilis that the chance of error is slight. However, in many cases the therapeutic test will be necessary to decide between tuberculosis and syphilis, and cases which do not respond to anti-luetic treatment are ipso facto tubercular.

Confusion with rickets is possible, as the two diseases have many points in common clinically, but they also, fortunately for us, have several X-ray signs which are nearly infallible.

The clinical course and onset may be alike, but when we compare the roentgenographic signs we quickly find a difference. In rickets, the bone ends tend to expand, the diaphyses are ragged in appearance, the bone ends are crescentic, the shafts are bowed, and the wrist and ankle joints broadened. The square skull and the presence of the rachitic rosary are distinctive.

Scurvy may also simulate syphilis. This condition is relatively rare in the south, due to balanced diet, but the difference in the pain, in scurvy being severe; the periosteal hemorrhages; and swelling of the shafts and joints aid in differentiation.

SUMMARY

Grouping all types and classes of bone syphilis, there are certain symptoms and roentgen findings which are especially significant, and one should frequently recall them to mind when treating any type or form of bone or joint lesions.

In order of importance I would list them as follows:

CLINICAL SYMPTOMS

Onset rarely acute.

Little pain or discomfort.

Very little fever or systemic reaction.

Multiple bone or joint involvement.

ROENTGENOGRAPHIC FINDINGS

Multiple bone involvement.

Bone production more marked than destruction.

The appearance of the bone on the film shows pathology away in advance of the clinical appearance of the patient's symptoms.

In children, the great amount of periosteal changes.

In new born and those under six months of age the increased density of the diaphysis, due to bone condensation; and the presence of periosteal elevation.

LABORATORY FINDINGS

May be positive or negative.

The usual prompt response to active rational treatment.

In concluding I believe that the ease and accessibility of X-ray examination permits of a safe and simple method of early and often positive discovery of this infection; this being particularly true in children, where frequently the factor of a possible hereditary infection is lost sight of, and considerable time lost and expense incurred while attempting to treat the child for some other infection, when a careful survey of the osseous system will readily give a correct diagnosis and permit of proper treatment.

Further in any case of bone infection of chronic nature, the addition of antiluetic treatment to other therapeutic and dietary measures is certainly to be recommended. The physician will many times be surprised and delighted at the prompt response the patient will show to this form of therapy.

DISCUSSION ON PAPER OF DR. CLARK

Dr. R. W. Richardson, Macon: Dr. Clark has so thoroughly covered the subject of lues that there is little that I can add. I just want to emphasize the necessity of a thorough radiation in lues, the differentiation between the latter, inflammatory processes and neoplasms. In congenital lues we must differentiate between scurvy and rickets. In the radiographic plate, scurvy is demonstrated by a Trummer zone which occurs 4 c.m. above the epiphysis. Lues attacks the diaphysis at the epiphyseal junction, sometimes causing complete destruction at this point while rickets attacks the epiphysis causing osteomalacia and due to pressure a saucer-like deformity at this point. In hereditary syphilis we must differentiate between sarcoma, in which case, as Dr. Clark has said, frequently the syphilis is multiple, so if we take plates of other bones, we will more than likely find the condition there. In

osteomyelitis the blood shows the condition and the patient has fever, whereas they seldom have any temperature in lues and complain only of slight pain.

Dr. F. G. Hodgson, Atlanta: These two papers tonight are very interesting because the question of diagnosis is most important to every one of us. The X-ray man gets up and tells us so and so, introduces the plate and gives us his opinion. It is often very valuable but the doctor has to make the diagnosis upon which treatment is instituted. The X-ray man does not have to amputate so his responsibilities are not as great as the physician who has charge of the case. I think we can not make too much use of the X-ray man's diagnostic ability but we must not accept his word as final and we must use every possible diagnostic aid.

A series of bone cases were operated on at the Children's Hospital in Boston. The X-ray and clinical findings varied and the doctors in charge finally came to the conclusion that there were no X-ray men, surgeons or clinicians, who could make a positive diagnosis before operation between all cases of osteomyelitis, tuberculosis and syphilis of the bone and the court of final appeal was the microscope. Syphilis may simulate any other known bone or joint condition. It may simulate any one of the conditions we have to treat and it always has to be ruled out. The Wassermann test, as you know, is not always positive. The X-ray findings are a great aid but they are not always positive. The therapeutic test is probably one of the greatest aids we have in making a positive diagnosis. Errors in diagnosis often entail a great deal of unnecessary suffering to the patient. Dr. Hibbs from his great experience in New York said he has treated cases for years for tuberculous of joints that proved to be non-tuberculous. He found out his errors from the microscope. The mistakes in diagnosis varied from ten to twenty-five per cent in some joints. He is a man of very wide experience who had every laboratory test available.

The one thing these papers should impress on us is the necessity of using every possible diagnostic test and not depending on any one man's opinion.

Dr. J. Yampolsky, Atlanta: At Emory University in the Pediatric Department we had the opportunity to treat several hundred syphilitics. I merely want to emphasize some points we already know. The first is pseudo paralysis. These patients are from six months to three years of age and are brought in with the statement that they can not use their limbs. The practitioner does not think of the possibility of syphilis. Second, in syphilitic dactylitis, an inflammation about some of the

joints usually about the hand. It is multiple and probably symmetrical. This would differentiate this condition from a tuberculous condition. The next thing is injury due congenital syphilis. This is more interesting because these patients usually come to me with a history of injury. I do not know why injury starts up the syphilitic inflammations but it does. Usually the child complains of the pains which the grandmother calls growing pains. These growing pains call for an X-ray examination. The next is the injury to the knee-joint. These patients come to me after playing football and get what they call a "Charley horse" or a bad knee. The doctor treats it for a sprain and bandages it and does not think of making an examination for syphilis. I just wish to call your attention to these things because it is wise to know when and when not to send your patient to the X-ray room.

Dr. J. J. Clark, Atlanta (closing the discussion): If I had had the opportunity to conclude my paper, I would have referred to some of the points brought up in the discussion.

The therapeutic test is the only way you can make your diagnosis. It may be the only way you can differentiate between rickets and syphilis by feeding or by giving mercury. If you treat a patient with mercury and he does not respond, it helps you to make a diagnosis of a tuberculous joint. Too many times these conditions are confused. Children are treated for scurvy, rickets or some other nutritional disturbance. They do get a little better but they do not show the improvement they would if they were treated for syphilis. I just tried to show you a few cases in which the X-ray will be of help in elinching the diagnosis.

THE NECESSITY OF PYELOGRAMS IN UROLOGICAL DIAGNOSIS*

WALLACE L. BAZEMORE, M.D.

Macon

A few of the case reports that I present tonight are concise and clear cut, even from the brief history that I shall give; with others the symptoms and findings are more or less vague and clearly show the impossibility of accurate diagnosis without employing the aramentarium that we have at our disposal. Direct inspection of pieturization of the entire urinary tract is possible.

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.

The employment of the simply two glass test will often localize our pathology or prompt us to further investigation. The use of urinary antiseptics without an attempt at localization of urinary infections is here condemned.

Urography is not without its dangers, and its routine employment is not advised. It should be used only when the clinical diagnosis cannot be made without it. Urography is contraindicated when the patient is of advanced age or greatly emaciated, in cases of advanced bilateral renal disease, and when it is apparent that surgical treatment will be of no benefit.

Extensive improvements have been made in recent years in the mediums employed in pyelographic work. The two mediums now most widely used are solutions of bromide and iodide. They are inexpensive and throw excellent shadows. They produce only slight irritation, but the pelvis should be drained after the picture is made. Introductions should always be made by gravity and it is seldom necessary to employ more than eight or ten cubic centimeters of the medium.

CASE No. 1

The first slide is that of an adult male complaining of general abdominal pain. Examination elicited tenderness in the left loin, and over the entire abdomen. Urine negative for infection. The ureter catheter told of a large hydronephrotic sac on the left side. Only a small amount of iodide solution has been injected. Pressure at the utero-pelvic junction from an aberrant blood vessel was found at operation.

CASE No. 2

Case No. 2 is of a boy twenty-one years old admitted to the hospital complaining of pain and swelling of the left epididymis. There is no venereal history and prostatic smear is negative. During his stay in hospital he developed pain in the right upper quadrant. There was no costo-vertebral tenderness. At this time a few pus cells showed up in his urine. At cystoscopy two ureteral orifices were found present on the right side. Both were catheterized and a pyelogram made. Pus was present in the ureter specimen collected from the upper pelvis with only a trace

of phthalein. The left side was normal. The pyelogram before you shows the characteristic swinging of the pelvis toward the midline. A diagnosis of horse-shoe kidney with infection in the upper pelvis was made and at operation this was confirmed. A heminephrectomy was done. The patient made a stormy but successful recovery.

CASE No. 3

The next case gives a history of bladder operation for tumor one year ago. For the past six months he has had a dull pain in the right kidney region, which at times is severe and radiates to the bladder. We suspected this patient of having a primary renal tumor which had implants in the bladder, as he gave a history of a vesicle tumor having been removed. (Next slide) 9A. Cystoscopy revealed a scarred right ureteral orifice admitting only a filiform. This was dilated to admit a catheter and a pyelogram made. Subsequent dilatation was carried to 12 French. His dye output increased from a trace to 8% in fifteen minutes.

Data as to the type and location of the bladder tumor could not be obtained, but it is likely that the scarring resulted from that operation.

CASE No. 4

The next case gives a history of pain in lower right quadrant and right loin, of dull character and of three years duration. Appendix removed eight months previously with no improvement. At cystoscopy a stricture was found about five c.m. up the right ureter, a wax bulb of about 7 French being tightly held. Dilatation to 14 French finally accomplished. At the first cystoscopy indigo carmine appeared in eleven minutes in a fair concentration, at a later cystoscopy indigo carmine appeared in five minutes, and of increased concentration. The pain has entirely disappeared along with the small amount of infection that was present.

CASE No. 5

This slide shows a dilated ureter above a stricture some 5 c.m. from bladder. A bulb was distinctly grasped at the constriction. Dilatation to 14 French relieved his backache and turbid urine.

CASE No. 6

The next case is of an 18-year-old boy giving a history of a left nephrectomy four years previously for stone. The plain X-ray picture is before you, showing the stone filling the right pelvis and presumably reaching quite far into the kidney. His general phthalin test was good. There was only a few pus cells present. A pyelogram in stone cases often helps greatly in telling of an intra-renal pelvis, if present, it means a nephrotomy. A pyelogram was not done because of the fear of stirring up an uncontrollable infection in his only kidney. Operation not advised.

CASE No. 7

There are very few cases of renal tuberculosis that have not had their share of urotropin. This case is no exception. He complains of frequency of urination and occasional hematuria. Cystoscope revealed a reddened left ureteral orifice. Bridge formation present. Suggestive tubercles present. No T. B. found. The pyelogram is not particularly suggestive of tuberculosis, but with his history and the bladder picture this diagnosis was made. Pathological report proved it correct. The urinary output from this kidney was ten times that of the opposite kidney. This patient was told that his frequency would immediately be improved by operation. It was. Ordinarily it is well to warn such patients that the bladder symptoms will be slow to improve, but in this particular case we removed a source of water supply that was ten times that of its fellow.

CASE No. 8

The next slide is interesting from a diagnostic point of view. He gave a history of pain in right kidney region, with radiation to bladder, chills and fever. The right kidney showed pus and blood, good function. A diagnosis of stone was made from the pyelogram. At operation only a divided pelvis was found with moderate evidence of infection. The plain X-ray was negative and we thought we were dealing with a stone visualized negatively.

CASE No. 9

The next slide is of a child six years old complaining of incontinence of urine. Percussion revealed a full bladder—catheter

showed 18 ounces. With the child in Trendelenburg position, a cystogram was made. The picture is before you. A vesico-rectal fistula could well be suspected from the picture. Spinal cord disease was ruled out and cystotomy performed to determine the bladder neck obstruction. A congenital stenosis of the bladder neck was found. I regret that the result of the operation is not known.

CASE No. 10

The following few slides will show the more or less typical pyelographic picture in renal neoplasms. I shall not discuss the various types of renal tumor. The pyelographic picture has fairly constant findings in all. There is practically always a deformity of the kidney pelvis. The utero-pelvic junction is broad, due to the pelvic wall retraction from the tumor. Single calices may be drawn out—a spider web formation. If the tumor encroaches on the pelvis, this is often small and irregular at the ureteral end.

The first slide is a hypernephroma. The broad ureteral pelvic junction with the incomplete filling of the upper and even lowermost calyx is typical of neoplasm.

The next slide is characteristic.

The next slide shows a pyelogram of an adeno-carcinoma of the lower pole. The long distorted pelvis is present.

In the next slide there is practically complete absence of the opaque solution in the calices or pelvis—a large hypernephroma adherent to all surrounding structures.

The next slide shows the broad ureteral pelvic junction and dilated pelvis. Note the tilting of the pelvis.

The next case was convalescent from a prostatectomy when he suddenly developed hematuria. Investigation proved the bleeding from the left kidney. The pyelogram is before you. There is a filling defect at the pelvic junction. The next slide is of the kidney showing the ball valve arrangement accounting for the filling defect.

The next slide is a plain X-ray picture. A large stone is present filling the entire kidney. The case was pyelogrammed at the same time the plain picture was made (next slide). The kidney was removed. It harbored a large stone in a carcinomatous kidney. Later study of the

picture shows a suggestive filling defect in the lower pole.

All solid tumors of the kidney can usually be diagnosed from the radiograms plus the history and urinary findings.

410 Macon National Bank Bldg.
Macon, Ga.

DISCUSSION ON PAPER OF DR. BAZEMORE

Dr. E. H. Floyd, Atlanta: To my notion pyeloureterography is the most efficient means we have of diagnosing pathologic conditions of the kidney and ureter and also of noting changes that take place in the kidney and ureter during life. I have a few slides that I would like to show illustrating changes in the kidney and ureter due to back pressure (slides). I think pyeloureterograms are indicated in nearly every kidney case which is to be operated upon. It locates the position of the kidney and ureter, and, any abnormalities in the shape, size and caliber of the kidney. It enables us to diagnose many conditions, one of the most important being a tumor of the kidney which partially fills the calyces or obliterates them by pressure. It also shows the position of stones in the kidney or ureter; whether or not there is a kink in the ureter and the manner in which the ureter joins and therefore drains the pelvis of the kidney. I think pyeloureterography has done more to obviate the necessity of exploratory operations upon the kidney than anything else we have. Once in a while surgeons make the mistake of doing a nephrectomy and removing all the secreting kidney substance the patient has. Such a thing can not be excused today because we have the means of preventing such an occurrence. There was a time when the kidney was explored for kidney pain or stone. That would be unnecessary today. In taking pyeloureterograms the proper technique must be used, otherwise the necessary information may be lacking.

Dr. R. W. Richardson, Macon: I wish to advise the use of pyelography in all right lower quadrant pain because all of us are familiar with the appendectomies that were done only to find that the trouble was not due to the appendix but to a stricture or stone in the lower right ureter. In early hydronephrosis and early malignancy I have found it helpful to do a bilateral pyelogram.

**MEETING
FIFTH DISTRICT MEDICAL SOCIETY
DECEMBER 7, 1927
ACADEMY OF MEDICINE
38 Prescott St., N.E., Atlanta**

SKIN CANCER-DIAGNOSIS AND TREATMENT*

WM. HOWARD HAILEY, M.D.

Atlanta

The common types of cancer of the skin are basal celled, squamous celled and mixed celled epitheliomata. The basal cell type is malignant locally, however there are recorded cases of metastasis. The squamous cell and mixed types are malignant generally because of metastasis.



Case 11. Treated with X-rays and radium
Well after 3 years 6 months

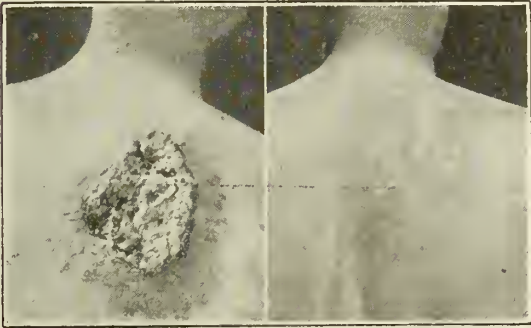
Good authorities say cancer of the skin occurs on the face in fifty per cent of the cases. In the writer's experience the per cent has been greater. It is a disease of the middle aged and elderly and occurs most often in men.

Basal cell epitheliomata are classified by Hazen as, flat rodent ulcer, nodular, rolled-edge, depressed scar-like, fungating, deep ulcerating and morphea-like. A single lesion may exhibit the features of several clinical types. These clinical varieties are due to secondary infection, degenerative changes in the lesion, resistance of the underlying tissues and location in the skin from which the growth arose. Usually only one tumor is present but there may be two or more. The basal celled type being the most common and known by the laity as "eating cancer," I will describe, in detail, a typical lesion. It begins as a small "spot" or papule which has the color of the horn of a light colored cow. Small capillaries ramify over the little tumor. On palpation

*Read before the Eighth District Medical Association, Royston, Ga., Aug. 11, 1926.



Case 19. Treated with radium. Well after 18 months



Case 25. Treated with X-rays and radium
Well after 3 years 10 months

it is hard and freely movable. Growth is usually slow. Except for itching subjective symptoms are absent. After a few months or years, the epidermis over the center of the lesion ruptures and ulceration follows. Now the lesion is button-like and the pearly rolled border is evident. Secondary infection occurs

disease progresses at the periphery. At this time simple treatment may cause the lesion to apparently heal but you are still able to feel and see the translucent growth. Do not let the apparent recovery deceive you. After ulceration occurs, the tumor may begin to grow rapidly. All tissues in its path are destroyed. An eye may be lost or a nose or ear "eaten" off. Unchecked death results from cachexia, induced by pain, loss of sleep, hemorrhage, anorexia, worry, etc.

DIAGNOSIS

This is not difficult if the physician secures a good history. Age of patient, duration and location of the lesion are important points. A point one-half inch below the inner canthus of the eye is the most common place for cancer to begin. In uncomplicated cases, there are no subjective complaints other than itching. This is an important diagnostic symptom. Late syphilis and lupus vulgaris must be ruled out. In syphilis a history is important. Usually there is more than one lesion. Syphilitic lesions seldom itch. Syphilis will cause as much destruction in a few weeks as basal cell epithelioma will do in years. The therapeutic test is always available—use mercury or bismuth. Last, a Wassermann is usually positive.

In lupus, apple-jelly bodies are seen at the periphery of the lesion. These are pathognomonic of tuberculosis. Lupus is seen to develop most often in the first decades of life.



Case 49. Treated with radium. Well after 1 year 4 months

and a crust soon forms. A sero-purulent discharge develops. The ulcer slowly spreads. In some cases the center heals over while the

Old tuberculin inoculated in a lupus lesion causes a reaction locally while it is negative in cancer and syphilis.

PROGNOSIS

Ninety-eight per cent are curable when treated early and thoroughly. The essayist saw one case which healed spontaneously.

Squamous celled epitheliomata are usually primary but may be secondary. When secondary it usually follows breast or prostate cancer. This type is much more serious than basal celled epithelioma because of its rapid growth and invasion of the glands and distant tissues. It occurs about the body openings, on the extremities, in old scars, X-ray burns, in pre-existing epidermal growths and is prone to follow trauma, certain occupations and some chronic diseases of the skin.

Attention is first attracted to a small, discolored, sealy or horny lesion. It is raised or flat in the skin. In a few months the growth reaches the size of a dime while it requires several years for a basal cell growth to do the same. Squamous cell epithelioma may become papillary or remain flat. The edges are abrupt and the induration extends beyond the visible growth. If ulceration develops the margin is ragged and usually everted. The base is hard, irregular and covered with a glairy or sero-sanguinous discharge. Dark crusts cover the lesion. The odor is often foul. When occurring near the muco-cutaneous borders cancer is usually vegetating or fungating instead of ulcerous. Neighboring glands becomes involved. Unchecked, the disease usually progresses rapidly and death follows from cachexia, hemorrhage, shock, pressure on some vital organ or an inter-current disease.



Case 63. Treated with radium
Well after 3 years 3 months

PROGNOSIS

Always grave. Recovery may be expected,

if treated early, provided the treatment is thorough. If the glands are affected treatment cures only a small per cent.

DIAGNOSIS

Here again, if the physician secures a good history and eliminates syphilis, tuberculosis, blastomyeosis and infected warts and moles, the diagnosis should not be difficult. Syphilis and lupus can be ruled out by the previously mentioned points. In blastomyeosis the lesion has multiple, minute abscesses, grows rapidly and there is not the degree of induration about the lesion as seen in cancer. Also iodides by mouth cause immediate improvement. Blastomyeetes can be found in the pus of the unruptured abscesses. Simple and aseptic dressings will decide in a few days whether or not you are dealing with an infected wart or mole.



Case 107. Treated—Electrodessication followed with crossfire radium therapy. Well after 8 months.

It is not easy to differentiate, clinically, between some basal cell and squamous cell tumors. The writer has seen three patients who had both.

The mixed cell epithelioma has the clinical and microscopical characteristics of basal and squamous cell epithelioma. Often diagnosis is difficult. A lesion may be decided to be basal celled and treated as such. It apparently gets well. Later recurrence develops and the cancer spreads rapidly, pursuing the course of squamous cell cancer. Biopsy and microscopical study are of greatest value when we are dealing with a mixed cell growth. However, a biopsy is not always advisable and most elderly people object to the procedure. Fortunately the mixed cell type is the least common.

PROGNOSIS

Same as with squamous cell tumors.

TREATMENT

At this time, it is well to state that any abnormal lesion of the skin, which is subjected to trauma, should be removed. Any lesion which is irritated, infected or growing and does not respond to simple treatment in three to six weeks should be looked upon with circumspection. Prophylaxis is always easier than cure. The common treatments in vogue are: caustics, surgery, endo-thermy, electro-dessication, X-rays and radium. No single treatment is suitable for all cases. Better results are obtained many times when two or three agents are used jointly. The features of the case should decide the treatment to be used.

The writer's experience has been mostly with endo-thermy, electro-dessication, X-rays and radium. In basal cell growths, it is seldom that any agent, other than radium, is necessary. In squamous cell tumors, under four per cent novocaine, all evident signs of the local growth and a surrounding zone of healthy tissue is destroyed by electro-dessication. The regional lymph glands are treated with X-rays or radium. If the glands are found to be involved in the beginning, the joint use of surgery and radium offers the best hope for a cure. Patients who have had basal cell tumors should be observed at intervals for a minimum of two years. Those who have had squamous cell tumors should be observed at intervals for a minimum of three years.

Believing that radium is the nearest approach to an ideal treatment for the majority of cancers of the skin, I wish to enumerate its advantages.

1. Absence of infection.
2. Absence of shock (mental and physical) to nervous and elderly people.
3. Hospitalization not necessary.
4. No disturbance of daily occupation.
5. Ability to concentrate the treatment at desired point.
6. Eliminates danger of electric shocks and burns.
7. Movements of patient does not disturb treatment.

8. Good cosmetic result.

9. Last and best, the treatment is painless.

This paper was prepared with the thought in mind, of making it practical for the majority of the physicians present. For this reason, a discussion of biopsy and microscopical diagnosis was purposely omitted.

MEDICAL ASSOCIATION OF GEORGIA

MINUTES OF THE COUNCIL

FIRST MEETING

The first meeting of the Council was held on Tuesday, May 10, 1927, at the County Court House, Athens, Georgia, and was called to order at 5 P.M. by the Chairman, Dr. T. C. Thompson, Vidalia.

Roll Call: The Secretary called the roll and the following Councillors responded:

Second District: C. K. Sharp, Arlington.

Eighth District: Stewart D. Brown, Royston.

Ninth District: C. L. Ayers, Toccoa.

Eleventh District: A. S. M. Coleman, Douglas.

Twelfth District: T. C. Thompson, Vidalia. President Harvard, Secretary Buncie and Parliamentary Clerk were also present.

REPORT OF COUNCILLORS

Second District: Dr. C. K. Sharp.

County Society	Members, 1926	Members, 1927	Eligible Non-members, 1927	Non-eligible	Cultists	Moved out of district	Newly located from other districts	Deaths	Remarks
Baker									
Colquitt	11	9			2				
Deeatur									No reprt. in detail
Seminole	14	12							
Dougherty	16	16			1				100%
Grady	9	10							
Mitchell	14	13			1				1 "Chiro"
Thomas	31	31			2				"Chiro"
Worth	7	7							
Tri-Co. (Calhoun Early Miller)	23	22		1	1	1	2		
Total	126	120		1	7	1	2	1	

All the counties of the Second District are organized except Baker, which has but three physicians; two of these are members of an adjoining society.

There is more or less activity in all the county societies, but none of them ideally so.

From the first of January I have endeavored by written request to have all secretaries collect all dues and organize for the year; some have co-operated with me fully while others have delayed this most important feature until a recent date, but all have finally organized.

I have written personal letters to all men who are eligible to membership and who had not paid their dues for 1927, pointing out the many advantages of organized medicine, and urging them to line-up for the year with, I believe, good results. This is no doubt a service well worth while, and will secure many more members than could be gotten otherwise.

I am glad to report that many of our men who tried their fortunes in "the land of flowers," have returned to the district, wiser men, having been disillusioned by this "will o' the wisp." Georgia, especially the southwest section, is the most favored spot on earth; fishing and hunting is good; everything in the way of crops indigenous to the climate can be grown on its fertile fields, famous, however, for its nuts; and anyone who will half try can make a living.

Many of the rural communities formerly supporting two or more physicians are without immediate medical aid, and it is a fact that in most of the towns of good size the physicians are men more or less advanced in years; this condition will of necessity have to be changed in these places or else when we old fellows shall have worn ourselves away and pass off the stage of action, the need will be acutely felt. We, as physicians, are largely responsible for this state of affairs; too much of the altruistic and not enough of business principles has been the rule, and this, I believe, is one of the main causes. Young men of today are hospital bred with the accompanying laboratory facilities; these must be supplied or else he is "at sea" in working out a diagnosis; without these he would soon drift as we do, groping our way. I fancy that in the future, the pay of the rural physician will necessarily have to be underwritten by responsible persons before he can be induced to enter these fields, or, some such arrangement whereby the physician can get his pay without so much trouble and vexation of spirit; a doctor can not do his best where he is constantly fretted about the source of his next dollar.

Attached to this is a tabulated report of the number of physicians, members and non-members compared to last year, together with

the number of deaths, newly located, removals, cults, etc.

As my term as Councillor of the Second District expires at this meeting, I want to express my thanks for courtesies universally shown me throughout the district, and especially to the secretaries for their co-operation during the past three years and the two terms prior to this, and I want to assure you gentlemen of the council that it has been a deep and abiding pleasure to have been associated with you in your deliberations, and can wish my successor no greater consideration.

Respectfully submitted,

C. K. SHARP,

Councillor Second District.

Eighth District: Dr. Stewart D. Brown.

I am sorry I have not a written report. It has been a physical impossibility for me to function as I would have liked to. I am going to try to do better in the future. I have not had an opportunity to visit the counties but I have written some letters and have endeavored to get them organized as far as possible. The only report I have is what Dr. Bunce has furnished me. It reads as follows:

MEMBERS REPORTED FOR THE
EIGHTH DISTRICT

County and Secretary	Members 1926	Members May 1, '27
Clarke—		
Harrold I. Reynolds,		
Athens	23	25
Elbert—		
B. B. Maddox, Elberton	10	10
Franklin—		
B. T. Smith, Carnesville	12	9
Greene—		
Goodwin Gheesling,		
Greensboro	5	4
Hart—		
A. O. Meredith, Hartwell	9	6
Madison—		
W. D. Gholston,		
Danielsville	8	6
Morgan—		
Dan M. Carter, Madison	6	5
Newton—		
W. D. Travis, Covington	7	6
Oconee		
Oglethorpe		
Putnam		
Walton—		
J. K. McClinton, Monroe	8	7
Wilkes—		
H. T. Harriss,		
Washington	10	10
Totals	98	88

Ninth District: Dr. C. L. Ayers.

Medical organization in the Ninth District is in fairly good shape. It is a large district composed of 19 counties, extending from Milton County which joins Fulton to the North Carolina line.

Fourteen counties have sent in a report with a total membership of 91 members. These other counties have one or two doctors each and it is almost impossible to get an organization unless they affiliate with one or more other counties.

Three counties, namely Fannin, Gilmer and Union, are organized under the name of The Blue Ridge Society with a total membership of seven (7) for the three counties. We hope later to get some of the other small counties organized under similar arrangements.

Several of the other counties have splendid county societies and have frequent meetings.

The District Society has had two interesting meetings since the last State Meeting. They met in Houshton in September and at Alto at the State Tuberculosis Sanatorium in March. At both meetings there was a good program and a fine dinner.

The total membership to date this year is 91 as against 102 for 1926.

Several other members will send in dues in a few days which will bring total up to 1926 enrollment.

MEMBERS REPORTED FOR NINTH DISTRICT		
County and	Members	Members
Secretary	1926	May 1, '27
Banks—		
Mat P. Deadwyler		
Maysville	1	1
Barrow		
W. L. Mathews, Winder	3	6
Blue Ridge—		
Fannin, Gilmer, Union		
C. B. Crawford		
Blue Ridge	7	7
Cherokee—		
Geo C. Brooke, Canton	10	9
Dawson		
Forsyth—		
Marcus Mashburn		
Cumming	8	
Gwinnett—		
D. C. Kelley		
Lawrenceville	13	12
Habersham—		
R. B. Lamb, Demorest	9	12
Hall—		
Pratt Cheek, Gainesville	24	21
Jackson—		
J. C. Bennett, Jefferson	14	13
Lumpkin		
Milton		
Pickens		

Rabun—		
J. A. Green, Clayton	3	3
Stephens—		
C. L. Ayers, Toccoa	10	7
Towns		
White affiliated with Hall		
Totals	102	91

Eleventh District: Dr. A. S. M. Coleman.

The year has in no sense been a bad one, all things considered. It is true that up to date there are only 77 members enrolled, as against 94 members last year. But when one considers the exceedingly poor outlook for the counties in this district during the past twelve months and the loyal way in which the majority of the men have stuck to their colors, the response to the call of the societies is really remarkable.

There have been two meetings held in the district, both in counties that have had no societies up to the past twenty-four months.

The highest commendation must be paid to Dr. McCullough and Dr. Reavis, President and Secretary of the Eleventh District, for the enthusiastic manner in which they have carried on, and fairly forced attention and interest.

In addition I am anxious to go on record as expressing my admiration and appreciation of Judge Harry Reed for the keen interest he has taken in the furtherance of the Ellis Health Bill. His interest has taken the practical form of impressing the importance of this bill on his grand juries, and in one instance I happen to know, he assured its members they would not be dismissed until it was passed upon. Needless to say our fight would soon be a thing of the past if only there were more Judge Reeds in the state.

MEMBERS REPORTED FOR ELEVENTH DISTRICT		
County and	Members	Members
Secretary	1926	May 1, '27
Altamaha, Appling	1	
P. H. Comas, Baxley		
Atkinson		
Bacon		
Berrien-Lanier	2	
Brooks—		
R. E. McClure, Quitman	5	7
Brantley		
Camden		
Charlton		
Clinch		
Coffee—		
T. H. Clark, Douglas	12	9
Cook—		
W. M. Shepard, Adel	5	5
Echols		

Glynn—		
J. W. Simmons		
Brunswick	9	
Irwin—		
G. W. Willis, Ocilla	4	4
Jeff Davis		
Lowndes—		
S. B. Ellis, Valdosta	16	16
Pierce		
Ware—		
K. McCullough		
Wayeross	29	26
Ware—Honorary, 3		
Wayne—		
M. N. Stow, Jesup	11	10

Totals 94 77

Twelfth District: Dr. T. C. Thompson.

MEMBERS REPORTED FOR TWELFTH DISTRICT			
County and	Members	Members	
Secretary	1926	May 1, '27	
Bleckley			
Emanuel—			
R. C. Franklin			
Swainsboro	13	12	
Emanuel—Honorary, 2			
Houston—			
E. L. Evans, Perry	5	4	
Johnson—			
J. G. Brantley			
Wrightsville	4	4	
Laurens—			
O. H. Check, Dublin	16	15	
Montgomery—			
J. E. Hunt, Mt. Vernon	5	4	
Ocmulgee—			
Bleckley, Dodge & Pulaski			
A. R. Bush, Hawkinsville	16	13	
Peach—			
M. L. Hickson			
Fort Valley	1		
Telfair—			
C. J. Maloy, Helena	15	14	
Telfair—Honorary, 1			
Toombs—			
W. W. Odom, Lyons	7	9	
Trentlen—			
L. I. Lanier, Soperton	1	2	
Twiggs—			
H. A. Rogers			
Jeffersonville	3	3	
Wheeler—			
W. A. Rivers, Glenwood		2	
Wileox			
Totals	86	82	

We have had two very good meetings, one in Vidalia and the other in Eastman. We had good programs and the meetings were well attended. In the district we enjoyed

these meetings as much as the State meeting. Our district as a whole, I think, is in very excellent condition except for the northern counties and we do not seem to be able to do anything with them. I wish they were cut off and put in the Macon district.

The Secretary: Dr. H. D. Allen, Jr., Vice-Councillor for the Tenth District, has come in.

Tenth District: Dr. H. D. Allen, Jr.

MEMBERS REPORTED FOR TENTH DISTRICT			
County and	Members	Members	
Secretary	1926	May 1, '27	
Baldwin—			
H. D. Allen, Jr.			
Milledgeville	20	23	
Honorary, 1 affiliated			
Columbia			
Glascok			
Hancock—			
C. S. Jernigan, Sparta	1	1	
Jefferson			
Lincoln			
McDuffie—			
F. G. Colvin, Ray City	3		
Richmond—			
Irvin Phinizy, Augusta	90	62	
Taliaferro—			
Jno. A. Rhodes			
Crawfordville	3	4	
Taliaferro—Honorary, 2			
Warren—			
R. C. McGohee			
Warrenton	5	5	
Washington—			
B. L. Helton			
Sandersville	21	17	
Washington—Honorary, 1			
Wilkinson—			
Totals	143	112	
Total Honorary, 4			

We had one district meeting last October but I was unable to attend and so I have no report. I do not know of any special work we have done to get members in or to organize the counties that report no members, though this work has been done several times in the past. Several of these counties have practically no active practitioners as far as we have been able to learn.

Dr. E. T. Coleman: I make the motion that the Council recommend to the House of Delegates that charter of Houston County be revoked and a new charter granted Houston-Peach Counties.

Motion seconded and carried.

The Chairman: Dr. E. T. Coleman, our ex-president, wants to know something about

honorary members. I will ask the Secretary to explain.

Dr. Clark: Chapter I, Section 4 reads as follows:

"Any member for old age, length of service, or other good reasons may, upon recommendation of the Board of Censors, be elected to honorary membership of his county society without dues. Such member shall be enrolled as an honorary member of his county society and this Association, and shall be entitled to all of the privileges of the Association."

It seems to me from the number you have that you have not been wise in electing honorary members. Honorary members are entitled to all the privileges of the Association and one of the privileges is to receive the Journal.

Dr. C. K. Sharp: I would like to make a motion that Dr. Bunce ask each Councillor to make an individual investigation of the honorary members in his district and to do this in person rather than by letter.

Motion seconded by Dr. Ayers.

The Chairman: I think that is a good motion. The privilege of this honorary membership has been abused and I think our Councillors are to blame for it more or less. We should investigate it.

Dr. Clark: I do not think the Councillors are to blame; I think the county societies are the ones at fault.

Motion made by Dr. Sharp carried.

The Chairman: I will appoint Drs. Coleman, Sharp and Brown on the Auditing Committee to report tomorrow.

On motion, duly seconded and carried, the Council adjourned at 6:30 P.M. to meet on Wednesday, at the close of the morning session.

SECOND MEETING

The second meeting the Council was called to order on Wednesday, May 11, 1927, at 1 P.M., by the Chairman, Dr. T. C. Thompson, Vidalia.

Roll Call: The Secretary called the roll and the following Councillors responded:

First District: C. Thompson, Millen (Vice-Councillor).

Second District: C. K. Sharp, Arlington.

Third District: G. Y. Moore, Cuthbert (Vice-Councillor).

Fourth District: O. W. Roberts, Carrollton.

Fifth District: E. C. Thrash, Atlanta.

Eighth District: S. D. Brown, Royston.

Twelfth District: T. C. Thompson, Vidalia.

President Harvard, Secretary Bunce and Parliamentarian Clark were also present.

The Chairman: We will have the report of the Councillors who were absent yesterday.

REPORT OF COUNCILLORS

First District: Dr. C. Thompson.

Being Vice-Councillor, I have no report to make, other than the following given me by Dr. Bunce.

MEMBERS REPORTED FOR FIRST DISTRICT			
County and Secretary	Members 1926	Members May 1, '27	
Bryan			
Bulloch-Candler—			
W. E. Floyd, Statesboro	20		
Burke—			
R. L. Miller, Waynesboro	16		16
Chatham—			
A. A. Morrison, Savannah	68		67
Effingham			
Evans—			
S. T. Ellis, Hagan	6		6
Jenkins—			
C. Thompson, Millen	5		6
Jenkins—Honorary, 2			
Tri-County—			
Liberty, Long & McIntosh	3		
Screven—			
E. E. Downing			
Newington	11		10
Tattnall-Evans—			
J. C. Collins, Collins	9		7
Totals	138		112

Third District: Dr. G. Y. Moore.

I have the following report from Dr. C. A. Greer, the Councillor for the Third District.

County and Secretary	Members 1926	Members May 1, '27
Ben Hill—		
L. S. Osborne, Fitzgerald	10	9
Ben Hill—Honorary, 1		
Clay		
Crisp—		
J. N. Dorminy, Cordele	19	18
Crisp—Honorary, 2		
Dooley—		
F. E. Williams, Vienna	13	7
Lee—		
Macon—		
F. M. Mullino, Montezuma	12	10
Macon—Honorary, 1		
Quitman—		
Randolph—		
G. Y. Moore, Cuthbert	16	18
Randolph—Honorary, 4		
Schley—		
Stewart-Webster—		
J. M. Kenyon, Richland	16	14
Honorary, 4		
Sumter—		
Ford Ware, Americus	19	17
Taylor—		
J. C. Hind, Reynolds		5

(Continued on page 398)

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to Welfare of Medical Profession of Georgia

139 Forrester Ave., N. E., Atlanta, Ga.

NOVEMBER, 1927

ALLEN H. BUNCE, M.D., Editor

H. L. ROWE, Business Manager

Publication Committee

E. C. THRASH, M.D., Chairman

A. S. M. COLEMAN, M.D.

M. M. HEAD, M.D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

IMPORTANT NOTICE

Publication Date: The Journal, as has been the custom for several years, goes to press on the 20th of each month preceding the month of issue. Therefore all news items, notices, communications, etc., should reach the office of the Journal on or before the 20th of the month preceding that in which they are expected to be published.

Scientific Articles: We now have on hand a larger number of scientific articles than at any time during the history of the Association. Many of these have been accepted as suitable for publication by the Publication Committee. The type and character of the articles submitted have improved each year. The only reason for delay in publishing many of these excellent papers is lack of space. The proceedings of the general sessions of the Association, House of Delegates, Council and papers read at each annual session must be published. This leaves only a very limited space for papers read before District and County societies. This condition of affairs necessitates the elimination of many worthy papers. The only alternative is the enlargement of the Journal and this would require an increase in annual dues.

Directory Issue: The December issue will contain the official directory for the year 1927. Your name and address will appear as it is printed on the envelope containing your Journal. If it is incorrect in any particular please notify the Secretary-Treasurer immediately.

News Items: We find it very difficult to secure news concerning our members. Every member can be of real service to the Association by sending in notices of changes in location, marriages, births, deaths, meetings and all other items of interest. We receive very little news concerning hospitals. We will appreciate it if every hospital in the state will send us from time to time items of general information.

MEMPHIS AND SHELBY COUNTY MEDICAL SOCIETY

The Memphis and Shelby County Medical Society, as hosts to the Southern Medical Association, desires to extend a most cordial and very hearty invitation to every physician to attend the meeting of that scientific body in Memphis November 14-17.

Memphis is ideally situated for this meeting. It is centrally located and is served by ten trunk line railroads operating seventeen branches, making it easily accessible from all parts of the country.

Memphis hotels rank with the best in the entire country. The new Hotel Peabody, a \$5,000,000.00 hostelry with 600 guest rooms, is conceded to be second to none. Other downtown hotels, the Claridge, the Gayoso, the Chisca, and a number of smaller ones, are famous for the excellence of their service and equipment.

All meetings will be held in the Municipal Auditorium which has a seating capacity of 12,500. It can be subdivided in a remarkably advantageous way to accommodate various smaller assemblies, committees, etc.

Hospital, clinical and teaching facilities of Memphis are equalled in very few cities under 500,000 in population. St. Joseph's, the Methodist, the Baptist and the Memphis General hospitals rank with the best anywhere. Combined they present accommodations for 1,250 bed-patients. Smaller similar institutions and sanitariums are also efficiently managed and excellently equipped.

The College of Medicine, University of Tennessee, is located in Memphis. This is a Class A Institution and its enrollment quota is full every year. The number of students admitted for the session which ended in June totalled 304. Arrangements have been made to admit 350 students this fall. An ambitious building

program is being carried out. A new building costing \$350,000.00 to accommodate the departments of Anatomy and Physiology was completed last spring. Two other new buildings costing \$450,000.00 are being erected and others are planned, space for them having already been purchased. The Colleges of Dentistry and Pharmacy are also in Memphis and enjoy a large patronage.

The Memphis and Shelby County Medical Society has a membership of over 300. Each member joins in the sincere hope that the largest attendance in the history of the Southern will be present and that each visitor will feel personally the welcome herewith extended as if he were receiving it in person accompanied by a hearty hand-shake.

A. F. COOPER, M.D., Secretary
Memphis and Shelby County
Medical Society.

SOUTHERN MEDICAL ASSOCIATION

MEMPHIS MEETING

Memphis, the Queen City of the Valley, will be the host to the Southern Medical Association, November 14-17. Ten years ago 'mid the call of the bugle and the tramp of soldiers, the Association held a great war-time meeting in Memphis. The uniform of the Army and Navy Medical Corps was much in evidence, as were uniforms of other countries worn by visitors to the meeting. The setting this time will be different. This will be a great peace-time meeting. But the purpose of both meetings is the same, to make better physicians of those who practice in the South.

GENERAL PROGRAM PLANS

The plan of the meeting last year was declared so successful that it has been decided to carry it out again this year. Monday there will be clinics by the profession of Memphis and an extensive program is being prepared by the local clinic committee. Tuesday will be given over to two large general sessions in which clinics and papers by distinguished physicians throughout the South will be presented, the program having been arranged by the President. The clinical sessions Monday and Tuesday, as well as many section meetings on Wednesday and Thursday, and the exhibits, will be at the City Auditorium, the finest and most commodious convention auditorium in the South. Monday evening there will be a general session featuring the address of the President, Dr. J. Shelton Horsley, of Richmond, Virginia, together with the address of welcome. Alumni reunions will be held on Tuesday evening, and the orations on medicine and surgery at a general session on Wed-

nesday evening. All sections will meet Wednesday and Thursday, forenoons and afternoons, each section meeting in half-day sessions as in the past several years.

ENTERTAINMENTS

The President's reception and grand ball, an event that is always enjoyed by many, will be held on Wednesday evening immediately following the general session. Other entertainments are being arranged with something special for the ladies. Memphis has splendid golf courses for those who wish to play golf and there will be the usual golf tournaments, one for the men and one for the ladies. The gun shoot tournament, held last year for the first time, won such popularity that arrangements are being made for a shoot at Memphis.

HOTELS

Memphis has some splendid hotels and all may be assured of comfortable accommodations. The Hotel Peabody, one of the best hotels in the whole country, is General Hotel Headquarters. Dr. J. J. Shea, 1018 Madison Avenue, is Chairman of the Hotel Committee, which will see that all are comfortably housed.

MEMPHIS AND THE MEMPHIS PROFESSION

Memphis is a great city with much of interest for all. It has splendid parks, in one of which will be found the largest collection of wild animals in the South, wonderful drives amid beautiful homes and much to charm the visitor.

It has a progressive medical school and splendid hospitals, and a medical society, the Memphis and Shelby County Medical Society, that is alive to its obligation to make the meeting the best in the history of the Association and to make all who come go home happy.

Dr. George R. Livermore is President of the local Medical Society; Dr. E. C. Ellett is General Chairman for the meeting; and Dr. B. W. Fontaine, Vice-General Chairman; and working under them are active committees.

Every physician in the South who is a member of his local and state society should attend this meeting if he possibly can. The cost of the trip will be an investment and not an expense. The gain in knowledge of all who attend will increase their usefulness and earning power.

Reprint from *J. S. Med. Assn.*, Sept., 1927.

M E E T I N G

SOUTHERN MEDICAL ASSOCIATION

MEMPHIS, NOVEMBER 14-17

ORGANIZED MEDICINE AND MEDICAL LEGISLATION

There have been guardians of the liberties of American Institutions throughout the period of our history as an Independent Republic. The sacrifice of soldier's lives on the field of battle has been more dramatic, but none the less real, than the laying down of life by the champions of the liberties and right of our people in the fields of politics, religion, education and public health.

The sentiment underlying and permeating any movement which has in the past challenged the valor of American manhood, has been threatening clouds of harm to the rank and file of our people. Such a threat does now exist in Georgia in the form of false methods of healing, lax and antiquated laws for control of Public Health, in a meagerly supported State Board of Health, in lingering superstitions and the like. We can not deny that the public mind has been attracted by the zealous efforts of those engaged in pushing the advantages alleged to reside in the ever new and miraculous healing methods. Misguided devotees of questionable systems of practice have entrenched themselves by organized effort directed by astute politicians, by ample lobbying funds and by manipulations conducted behind closed doors, far from the knowledge of those whose duty it has been and *whose duty it is* to guard the people's interest with respect to the progress of legitimate medicine. We, as an organized profession, are directly responsible for the protection of the right of Georgia's citizens concerning matters of health legislation not to mention the chagrin we should feel at laws which have already been enacted giving a legal excuse for the operation of charlatans. Our people need more than anything else sound bodies and active minds. Emphasis of State Government on the construction of good roads and on cattle and swine husbandry is to be encouraged, and we of the medical profession will lend the full weight of our influence in this direction. But is it not time to consider first the health of our citizens for whom all these things must be regarded as subservient? When our people

are sick or threatened by epidemic or disabled by accident or rendered inefficient by distortion of mind, no false prophet of new-found doctrines of health will be found adequate to meet the situation. Past emergencies of this nature and countless sufferers brought back by the tender and faithful administration of the regular practitioner of medicine in Georgia, attest the efficiency of the old school. Then why the spread of nostrum and charlatan? Has it come up to meet a need in Georgia? Rather has it not grown because we have not led the way to better things by supporting legislators who were solidly committed to a program of expansion in health education? Have we as doctors concerned ourselves with legislation in Georgia affecting our own rights and those of the people under our immediate care? Are we familiar with the statute covering licensure of men who propose to practice the healing art whereby charlatans are permitted to come to Georgia as a profitable field for operation? Unless we, whose duty it is, respond to the urgent demands of our time for men who will challenge the right of those moved by unworthy motives in medicine, who shall lead the fight for measures that will safeguard our people, and what group of Georgians will offer to mould sentiment in our profession which will drive from amongst us those who would debase a holy calling by its prostitution to the ranks of a trade.

Argument is not needed. Eloquence is impotent. Plain words must be spoken. Indifference and lethargy has choked the noble sentiment of our members. We have lived too much unto ourselves and drawn our limiting horizon too closely about us. Doctors of Georgia, this appeal is for a rededication of time and talent to the growth of our profession and to an extension of its service to all the people of our State. We have the potential power to shape legislation in Georgia and the call is now made to you that we stand together for the preservation of the tenets of the most glorious profession on earth and for the translation of its benefits into an intensified service to the people of our State. They are entitled to the best medical service scientific effort has produced. Shall we permit a

proffer of stone when the need is for bread?

The Committee on Public Policy and Legislation is now engaged in working out plans whereby every member of our Association can have an active part in the fight to restore the dignity of the profession to which we have devoted our lives. Let us awake and take our place in the new world in which we live. We cannot longer withhold our influence from the realm of politics. We, as an Association, must be felt in Georgia when legislators direct themselves to the task of making laws affecting the public health. Even more we must initiate new laws and carry to an effective application those, such as the Ellis Health Law which has already been placed on the statute books.

In this renewed effort to raise a strong legislative voice dedicated to the improvement of the public health in Georgia and to the suppression of such growing evils as have been suggested, you and each of you are urged to enlist.

Reference to the best method of procedure to obtain the improvements desired raises a controversial point. Some well-meaning and sound thinking members of our Society advocate a policy of non-interference and hold that fads and faddists soon die unless a sympathetic public, aroused by their claims of persecution, come to their aid. These likewise refuse to embrace the political program used by the cults, namely, legislative influence obtained by a group of advocates trained in methods of political expediency and innuendo, believing that such ill gotten legislation yields no lasting results. It is the aristocracy in medicine refusing to bend the knee to modern legislative methods.

All those who serve on our Society's Legislative Committee, while yielding to no one with regard to their allegiance to medical ideals, are immediately confronted with a situation in legislative circles in which questions are not settled upon their merit or after the logic of the idealistically inclined. The legislative mind is shaped and fashioned by certain so-called leaders whose endorsement of a measure makes it good and whose ob-

jection makes it bad. These leaders block legislation when their viewpoint is likely to be endangered on the floor. They are courteous to your Society's representatives, affect an interest in the cause they espouse, but either wilfully or because of pressure by the proponents of other measures whose advocates offer a more aggressive and commanding front, allow medical legislation to die in committee rooms or to slowly expire on the inactive end of padded calendars.

In the Halls of the Legislature, the doctor is under the necessity of pitting his wits against an opponent trained in the business of writing and passing laws. In this pitiable dilemma with legislative lamps untrimmed and hedged about by medical ideals which limit such initiative as might overcome obstacles, he sees his well-meaning effort come to naught.

And now to the crux of the whole matter. Shall "we fight the devil" with his own weapon or sit at the feet of the Georgia Legislature asking in the name of Georgians medical alms for her citizens? Shall we play the game of politics or rest on an aristocracy in medicine which cures no legislative ills? Again united we may achieve—but divided we become pawns in the hands of those who look upon the practice of the healing art as an opportunity under the State's protection for the exploitation of its citizen's frailties. To the preservation of an opposite sentiment which has always sought to find and eradicate the cause of physical decay and which attribute alone has justified the survival of the great orthodox medical profession, let us cling with unabated enthusiasm. But is it not time that we yield to the urge of a righteous wrath to the end that we may secure such legislation as will protect our people against those who offer stones when they go seeking bread? If dress-suit methods fail us, and they have, shall we longer hesitate to stoop a little if in bending we may conquer in the name of Georgia's potentially sick citizens?

C. W. ROBERTS, M.D.

Georgia State Association of Graduate Nurses

OFFICERS

President.....	Miss Lucy M. Hall, R.N. 522 East 40th St., Savannah, Ga.	2nd Vice-President.....	Miss Mae E. Burges, R.N. 1108 East Henry St., Savannah, Ga.
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Treasurer.....	Miss Jane VanDeVrede, R.N. 105 Forrest Ave., N.E., Atlanta, Ga.		

HOSPITAL STANDARDIZATION CONFERENCE CLINICAL CONGRESS, AMERICAN COLLEGE OF SURGEONS

The tenth annual Hospital Standardization Conference of the Clinical Congress of the American College of Surgeons was held in Detroit, Michigan, beginning October 3rd.

The opening meeting had several interesting papers, but none of more general concern than the report of the Director General, Dr. Franklin H. Martin.

Of interest to Georgia doctors and nurses were the figures concerning our own state. It ranks 'B,' in that between fifty and seventy-five per cent of the hospitals visited were conditionally or fully approved. It showed that there is available in Georgia .8 of one bed per 1000 population. This means that one person out of every one hundred and twenty-five needing hospital treatment can be cared for in that way.

Dr. Martin commended the institutions for the progress that was being made in attempting to meet minimum standards.

A very interesting paper was read by Dr. Bert Caldwell of Tampa, Florida, who showed that the average man of moderate means can not avail himself of hospital treatment without placing an undue burden upon his future earnings.

In discussing this subject, Dr. Jolly, president of the American Protestant Hospital Association, said that the psychology of the average man was all wrong in regard to sickness. As compared to hotel rates for the individual service received the cost of hospital care was not high.

The afternoon meeting was a joint conference of the medical and nursing professions. A number of nurses contributed to the program.

Ree. C. B. Moulinier, president of the Catholic Hospital Association, spoke on the "Art of Nursing." He stated that all of the arts implied a knowledge of science. That if nursing is to be classed among the arts, it must be

founded upon a broad educational foundation. He advocated an academic degree for all professional nurses. He emphasized the need for more fundamental education as a basis for nursing knowledge.

Perhaps the most interesting paper of the program—certainly the one which impressed the medical members of the audience of about one thousand—was the "Facts and Findings Gleaned from a Survey of the Hospital and Private Duty Nursing Fields, from the Standpoint of the Patient, the Doctor and the Nurse," as presented by May Ayers Burgess, Ph.D., Director of Study for the Committee on Grading of Schools of Nursing. In reports of her work, she states that the first task of the committee was to find out what the facts were. No study of schools of nursing could be made until something of the conditions for which the schools exist is known—the problem of supply and demand. This study was begun in March of this year in ten states, of which Georgia is one. The response from doctors, nurses, hospitals and the public has been generous in number and illuminating as to content.

Dr. Burgess said: "We found out that nurses love nursing to an extraordinary degree. Even nurses who write bitterly about their experiences say 'I love bedside nursing. I should like to keep on taking care of patients.' A rather wonderful professional devotion to the service of the patient. "But private duty nurses are not happy about the conditions under which they work. They want four things—reasonable hours, adequate income, constructive leadership and opportunity for professional growth.

The public health and the institutional nurses want the same things, but their tone is different, because they are for the most part already getting them.

Now, these four things are what all professional people want. We take for granted the reasonable hours, the adequate income, constructive leadership and the opportunity for growth. What is essentially different in private duty nursing from the other two

fields? Why could not the conditions of work be made equitable for the people in all three fields?

And what do the doctors want?

The questions asked the doctors concerned the patients and the nurses of a certain week. Dr. Burgess says they are beginning to discover that "If you ask nurses about doctors in general, you get one answer; and if you ask nurses about doctors whom they work with, you get a different answer. If you ask doctors about nurses in general, you get one answer, and if you ask them about nurses they personally know and work with, you get a very cheerful and constructive answer."

The doctor wants his patients given good nursing care for as many hours as his patients need it. Again, "The doctors are not thinking about how much nurses earn. They are thinking about how much their patients have to pay for nursing care, which is quite a different thing. The doctor has a complaint about nurses. Not so much about their quality, but that he can't always get one. Doctors have a right to demand that somehow machinery be set up so that when a nurse is needed she can readily be secured, and a good one."

It is an unfortunate patient that comes down with pneumonia on Christmas eve. And yet, of course, private duty nurses have the right, as all other professional people have, to a certain definite amount of recreation and free time. They ought not to have to work on all their Sundays, nor on all holidays. Why should not the private duty nurses take turns? What is needed is organization and equitable distribution of nursing service. At present the doctor does not understand the situation from the viewpoint of the nurse."

The study shows that the private duty nurse worked less, worried more, was sick more and rested less than the nurses of the institutional or public health fields. The private duty nurse's income at the end of the fifth day of the week studied stopped, while the public health nurse and the institutional nurse received salary for the full week.

The average yearly earnings for the whole group of private duty nurses in 1926 was \$1311, the public health nurses averaged \$1,720, and the institutional nurses (allowing \$500 for maintenance equivalent) earned on an average of \$2079. Each nurse was asked "Do you intend to keep on indefinitely with private duty nursing, institutional or public health work? The private duty nurses answered 55% desired to stay in that line, 9% were uncertain, 36% want to get out of private duty nursing. The public health nurses answered 86% desired to remain in this serv-

ice, 6% were uncertain, 8% wanted to leave it. The institutional nurses, 82% want to remain, 7% are uncertain and 11% want to leave it. Showing that public health nurses and institutional nurses are, to a far greater extent, happy and contented; their services are organized, those of the private duty nurses are not.

"If private duty nurses will work together and join in experimenting with solutions which are now being tried, they can re-make their jobs. Moreover, if in their talking and thinking and experimenting they keep the sick-in-bed patient steadfastly in mind, and work to help the patient as well as to help themselves, they will before long discover that the medical profession or the intelligent main body of it, at least, is willing to help. What institutional and public health nurses already have, private duty nurses can almost surely get if they are willing to pay the price. The big advantage which private duty now has is its personal independence of action. The big problem for private duty nurses is how much of this cherished independence of action are they willing to give up in order to get the other things they want?"

Dr. Burgess adapted these facts very ingeniously to the viewpoint of the doctor, the public and the nurse, in her audience. Her paper was enthusiastically received and commented upon.

Papers by Miss Shirley Titus of the Ann Arbor University Hospital on "Preliminary Educational Requirements"; on "Group Nursing" by Miss Janet M. Geister of the American Nurses' Association; on "Central Registries" by Miss Minne Ahrens, Director of the Directory of the Chicago Nurses' Club, which is conducting an interesting experiment in hourly nursing; on a "Comparison of the State Requirements of the various states in their Nurse Practice Laws," by Miss Adda Eldredge, Director of the Bureau of Nursing Education of the State Board of Health of Wisconsin; on "Co-operation Between the Medical and Nursing Professions," by Miss Jane Van De Vrede of the Georgia Board of Examiners of Nurses, followed.

Dr. W. W. Brand of Toledo, and Dr. Frank Garber of Muskegon, contributed to the discussion. These papers will appear in the Bulletin of the College of Surgeons and are well worth reading, judging from the remarks made of them by those present.

The evening meeting was an open and memorable one. There were honor guests from many countries, and Sir John Bland Sutton of London made the address of the evening. Since he could not remain for the convocation meeting, he was accepted then as an Honorary Fellow of the College, with all the pomp

and ceremony of the usual occasion. The President, Dr. W. W. Chipman, reviewed the accomplishments of the organization in an instructive and charming manner, at the close of which he divested himself of his robe of office and placed it upon the shoulders of his successor, Dr. George D. Stewart of New York.

The Tuesday morning session was given over to a consideration of the duties and responsibilities and relationship of the Board of Trustees, the Superintendent of the Hospital, the Superintendent of Nurses and the Medical Staff. The discussions of the afternoon centered around Statistics and the Medical-Legal aspects of hospital service. Judge Harold M. Stephens of Salt Lake City made a very interesting address, and later conducted a round table discussion on this subject.

Tuesday evening's program was in the nature of a memorial centenary in honor of Lord Lister. Replicas of the tools of Lord Lister and a memorial tablet were received and became property of the College, and an address by Dr. William W. Keen of Philadelphia, who gave personal reminiscences of the great benefactor to surgery, was a memorable part of the program.

Dr. William J. Mayo spoke on "The Fourth Epoch in Medicine," referring to the work of Pasteur and Lister. Dr. Mayo said he believed that the next great epoch in medicine would determine those changes in the tissues which are termed metabolism, and perhaps the real discovery of what life really is.

Each day was spent in clinics and demonstrations in surgery by such eminent men as Dr. George W. Crile of Cleveland, Dr. Hugh Young of Baltimore.

The thirty Detroit and Ann Arbor hospitals staged specially planned clinics and demonstrations to which local doctors and nurses gave great attention and care in preparation, and every facility made available to those desiring any particular type of work. Admissions were by ticket, so that one was never disappointed in results, as only the number who could be conveniently arranged for were admitted at any one time.

The crowning meeting of the Congress was the convocation, at which the largest class of Fellows was admitted in the history of the organization. Twelve Georgia doctors were admitted, and one Georgia surgeon, Dr. R. M. Harbin of Rome, was named to the Board of Governors.

OPEN MEETING OF THE GEORGIA STATE NURSES' CONVENTION

A cordial invitation is extended to doctors, nurses and people interested to be present at an open meeting of the Georgia State Nurses' Association, to be held in Macon, Georgia, at the Nov. 8, 1927, at 8 o'clock in the evening.

District Meetings

The First District held its annual meeting on Friday, October 21st at 2:30, in the Academy of Medicine of the Fulton County Medical Society on Prescott Street, Atlanta.

The Third District held its annual meeting at Brantley Hall, State Sanitarium, Milledgeville, October 1st. The membership of the District had more than doubled during the past year. Mrs. Mac M. Jones was re-elected president, and the other officers elected were: Miss Cheevie Moore, Sandersville, first vice-president; Miss Gladys Kitchens, Milledgeville, second vice-president; Miss Johnnie Robinson, Milledgeville, secretary; Miss Elizabeth Dominy, Macon, treasurer. Directors elected were Miss Annie P. Jones, Milledgeville, and Mrs. Rosa Buford, Macon.

The Second District held its annual meeting October 10th at the University Hospital, Mrs. Joseph Akerman, president; Miss Gene Greneker, vice-president; Miss Susia Greene, secretary; Miss Margaret Dorn, treasurer. Directors, Miss Gwinnette Dougherty, Mrs. P. E. J. O'Connor, Miss Nell Henry and Miss Cora Brown.

A SYMPTOMATIC TREATMENT OF TUBERCULOSIS

Every physician will be interested in a forthcoming publication entitled "A Symptomatic Treatment of Tuberculosis," a clear and concise outline of the status of tuberculosis therapy. The book contains a thorough review of the immunologic and therapeutic phases of the subject. In addition, it presents a new viewpoint in regard to the pharmacology of the substances guaiacol and calcium, setting forth the action of these two remedies in bringing about amelioration of temperature and night sweats.

A unique feature of the publication consists in an extensive array of clinical data and case histories, being a translation and resume of the thesis "Guaiacol and Calcium Intravenously in the Treatment of Pulmonary Tuberculosis" by Rodolfo Alvarez Boettiger, published in the *Revista de Ciencias Medicas*—the official publication of the Mexican Army and Navy Department of Military Medicine.

The book may be obtained from the Loeser Laboratory, 22 West 26th Street, New York.

ALL ABOARD FOR MEMPHIS!
SOUTHERN MEDICAL ASSOCIATION
NOVEMBER 14-17

District and County Societies

District Editors

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Long, W. V., Savannah. 2. Watt, C. H., Thomasville. 3. Greer, Chas. A., Oglethorpe. 4. Peniston, Joe B., Newnan. 5. Camp, R. T., Fairburn. 6. Thompson, O. R., Macon. | <ol style="list-style-type: none"> 7. McCord, M. M., Rome. 8. Carter, D. M., Madison. 9. Bennett, J. C., Jefferson. 10. Ward, C. D., Augusta. 11. W. F. Reavis, Waycross. 12. Cheek, O. H., Dublin. |
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1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.
2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926.
3. Dougherty County, Dr. I. M. Lucas, Albany, Dec. 15, 1926.
4. Chattooga County, Dr. W. B. Hair, Summerville, Dec. 16, 1926.
5. Macon County, Dr. F. M. Mullino, Montezuma, Dec. 30, 1926.
6. Lamar County, Dr. Jno. M. Anderson, Barnesville, January 6, 1927.
7. Turner County, Dr. J. H. Baxter, Ashburn, January 13, 1927.
8. Pike County, Dr. M. M. Head, Zebulon, January 25, 1927.
9. Rabun County, Dr. J. A. Green, Clayton, January 27, 1927.

10. Murray County, Dr. E. H. Dickie, Chatsworth, January 27, 1927.
11. Taylor County, Dr. J. C. Hind, Reynolds, January 29, 1927.
12. Jasper County, Dr. E. M. Lancaster, Shady Dale, February 9, 1927.
13. Terrell County, Dr. Logan Thomas, Dawson, February 24, 1927.
14. Butts County, Dr. J. Lee Byron, Jackson, March 30, 1927.
15. Franklin County, Dr. Stewart D. Brown, Royston, April 11, 1927.
16. Ware County, Dr. K. McCullough, Waycross, April 12, 1927.
17. Wayne County, Dr. M. N. Stow, Jesup, April 12, 1927.
18. Stephens County, Dr. C. L. Ayers, Toccoa, April 18, 1927.
19. Barrow County, Dr. W. L. Mathews, Winder, September 24, 1927.

1928 HONOR ROLL

1. Randolph County, Dr. G. Y. Moore, Cuthbert, September 20, 1927.

NINTH DISTRICT MEDICAL SOCIETY MEETING

The Society met in the Dixie-Hunt Hotel at Gainesville on September 21st. It was one of the best attended meetings ever held in the Ninth District. All the essayists were present and the discussions were free and helpful. The program included the following:

- 11 A.M. Call to order by the president.
- Invocation by Rev. R. Q. Leavell.
- Address of welcome by Dr. J. B. Rudolph.
- Response by Dr. C. L. Ayers.
- Minutes of last meeting read and approved.
- Scientific Program*
- Bronchial Asthma from the Standpoint of the General Practitioner, H. K. Phillips, M.D.
- Diabetes Mellitus, Pratt Cheek, M.D.
- Some Breast Feeding Problems, W. L. Mathews, M.D.
- Some Prostatic Considerations, Montague L. Boyd, Atlanta.
- Address by W. A. Mulherin, M.D., Au-

gusta, President of the Medical Association of Georgia.

Supracondyloid Fractures of the Elbow, G. A. Coker, M.D.

In Memoriam of John K. Burns, Sr., W. H. Garrison, M.D.

Blood Transfusion in the New Born, C. D. Wheelchel, M.D.

Ninth District Meeting, Woman's Auxiliary, Medical Association of Georgia

Meeting convened at 10 o'clock A.M., September 21, 1927, in the Dixie-Hunt Hotel, Gainesville. Program as follows:

Music.

Invocation, Mrs. E. M. McDonald, Jefferson.

Address of Welcome from City and County, Mrs. J. H. Downey.

Response from Ninth District Auxiliary, Mrs. O. N. Harden, Cornelia.

Music.

How Doctor's Wives Can Help Their Husbands in an Organized Way, Allen H. Bunce,

M.D., Atlanta.

Annual Physical Examinations of Adults (White and Colored), Theodore Toepel, M.D., Atlanta.

Message from State Auxiliary, Mrs. Paul L. Holliday, Athens, State President.

At the noon hour a most delicious luncheon was served. Among our visitors were: Drs. W. A. Mulherin, President Medical Association of Georgia; Allen H. Bunce, Secretary-Treasurer, Theodore Toepel, Montague L. Boyd, and L. W. Grove, Atlanta; J. Cox Wall, Eastman; Dan M. Carter, Madison, Secretary of the Eighth District Medical Society.

Dr. Charles Stevens, representing Parke, Davis and Company, showed some interesting views of how biologicals are made.

The next session will be held at Canton the third Wednesday in March, 1928.

Respectfully,

J. C. BENNETT, M.D.,
Secretary.

NEWS ITEMS

The Woman's Auxiliary of Wesley Memorial Hospital sponsored a series of eight lectures on the "Care of Infants and Children," given by members of the faculty of Emory University School of Medicine. The lectures began on Tuesday afternoon, October 11 and continued each succeeding Tuesday afternoon until completed. Registration fee of \$1.00 was charged and the lectures were open to all interested women.

During the first nine months of 1927, The Macmillan Company, Publishers, have brought out a number of very significant books, prominent among which are Dr. William Palmer Lucas' *Text-Book of Pediatrics*, so highly spoken of in the medical press; the new seventh edition of Sequeira's *Diseases of the Skin* as well as a number of other texts and reference books. The month of September marked the publication of an extremely important work in a subject which is prominently before the eyes of the medical profession, namely, *Plastic Surgery of the Orbit* by Dr. J. Eastman Sheehan, internationally known authority in this field. Keiller's *Nerve Tracts of the Brain and Cord* is another outstanding book published about the same time.

The Sixth Annual Meeting of the Southern Association of Anesthetists will be held at the Claridge Hotel, Memphis, Tenn., November 14th and 15th. This organization meets annually in conjunction with the Southern Medical Association. Its objects are: to advance the science and art of anesthesia—to stimulate interest in all forms of anesthesia and analgesia; general, regional and local—to advance and improve the status of anesthesia

administration as a well defined specialty;—and to offer and provide a Forum for the presentation and discussion by all interested, of phases and problems of anesthesia which surgeons, obstetricians and anesthetists constantly encounter.

The Egleston Memorial Hospital will be built at an early date from the funds left by the late Mr. Thomas Egleston. It will be built in Atlanta for children and only those under twelve years of age will be admitted. The first unit is to be named in honor of Mr. Egleston's mother.

Doctors A. F. White, Flovilla; H. F. McDuffie, Atlanta, and B. T. Wise, Plains, were re-appointed to the State Board of Medical Examiners.

Doctors M. S. Brown, Fort Valley, and J. H. McDuffie, Columbus, were re-appointed to the State Board of Health.

Miss Jane Van De Vrede, Atlanta, and Miss Vera Mingledorff, Savannah, were appointed to the State Board of Examiners of Nurses.

Dr. W. W. Battey, Augusta, and Dr. S. T. R. Revell, Louisville, read papers before the Richmond County Medical Society on September 23d.

First Lieutenant Edward Thonrich, M.A.,-Res., Station Hospital, Fort Benning, Ga., has been allotted to the 82nd Division for assignment.

First Lieutenant Benjamin F. Holcomb, Dent.-Res., 68 N. Green St., Gainesville, Ga., has been relieved from assignment to 316 Motor Repair Battalion due to expiration of appointment.

Announcement of an intense post-graduate course in Neurology and Psychiatry at Vienna January 2d to February 28, 1928, for Neurologists, Alienists, Internists and General Practitioners. It is very easy to organize intensive studies for a group of physicians who go to Vienna at a previously fixed date. A special systematic class for post-graduate study in Neurology and Psychiatry will be held in English between the dates mentioned at the Neuropsychiatric Clinic of Prof. Wagner von Jauregg and the Neurological Institute of Prof. Marburg, Vienna University, Austria, under the auspices of the American Medical Association of Vienna. The fee is \$214.00 for each physician. Application with a certified bank check for the amount of \$50.00 should be sent to Decent Dr. E. Spiegel, Vienna, 1., Falkenstraf 3 and are accepted in order of priority. Card is given each applicant which gives him the right to enter Austria without paying the Austria Visa. The class will be held for a minimum of eight and a maximum of fifteen. If the minimum is not reached, the money will be refunded. Further information may be obtained from Decent Dr. E. Spiegel, Vienna, 1., Falkenstrafe 3.

It is announced that at the Loeser Laboratory the adaptability of lead for intravenous injection

has been thoroughly studied. They have developed a solution of colloidal lead hydroxide which is held in perfect solution by sustaining ions instead of particles of gelatine or proteins, and is especially well adapted for intravenous injection. When this solution is placed in a dialyzing thimble and dialyzed against distilled water, the sustaining ions diffuse into the water and the colloidal lead hydroxide remains in the thimble. Only a small proportion of the lead diffuses. Animal tests indicate a lower toxicity than any other solution reported in the literature. It enables the clinician to administer as much as 50 mgms. of lead at one dose without causing hemoclastic reaction. For complete information address Loeser Laboratory, 22 West 26th St., New York, N. Y.

The new biography of the poet—"That Man Heine," by Lewis Browne—gives in vivid fashion the story of Heine's boyhood and his career as poet, political writer, pleasure-lover, and wit. Here he is in his brilliance and egotism and pathos, his whining poverty, his spurts of bravery, his stormy life with the selfish and ignorant Mathilde, whom he never ceased to adore; and through it all runs the tragic weakness of character and physique in spite of which he wrote the lyrics that have brought him undying fame. "That Man Heine" will be published by Macmillan on October 14th.

Dr. V. H. Bassett and Dr. A. A. Morrison, Savannah, working in the city health department, vaccinated and furnished free smallpox vaccine for all school children at the beginning of the fall term.

Drs. T. R. Aycock, W. H. Lott and J. K. McClintie, Monroe, have opened offices in the Doctor's Building on South Broad Street, equipped with X-ray and laboratory.

Dr. J. S. Daniel, formerly of Norfolk, Virginia, has removed to Newton, Georgia, and opened offices in Jernigan's Pharmacy.

American Hospital Association convened in Paris, France, September 19. Representatives from twenty-nine different countries were in attendance.

Miss Elizabeth Branham of Oxford, succeeded Miss Crosby as public health nurse for Thomas county. Miss Crosby accepted a position in the Health Department at Birmingham.

Eleventh District Medical Society met at Folkston on October 18. Dr. Albert Fleming was chairman of the Committee on Arrangements.

The Sixth District Medical Society will meet at Griffin on November 30.

The Randolph County Medical Society held its October meeting on the 6th. Dr. D. L. Smith read a paper on The Child's Mouth; Dr. J. C. Patterson, Case Report.

Dr. J. K. Burns, Gainesville, spent several weeks at the Mayo Clinic, Rochester, Minnesota, doing post-graduate work and attended the meeting of the American College of Surgeons at Detroit, receiving the Fellowship Degree conferred by the College.

Drs. W. D. and R. L. Kennedy, Metter, have opened a hospital on Lewis Street well equipped for diagnosis and treatment of patients.

Dr. A. L. Prince, Morganton, has opened offices in the Court House at Blairsville and will move there at a later date.

Dr. Jno. A. Pirkle, formerly of Eatonton, has moved to Monroe and will practice his profession in Walton and adjoining counties. He resided in Monroe for many years and is favorably known throughout that section.

Dr. O. C. Gibson, Macon, was host to his friends at a barbecue given in Savannah on September 30.

Dr. Walter A. Norton, Savannah, attended the meeting of the American College of Surgeons at Detroit and spent several weeks at the Mayo Clinics, Rochester, Minnesota, taking post-graduate work before returning.

Dr. W. W. Edwards, Butler, entertained the members of the Taylor County Medical Society at his home on September 22.

OBITUARY

Dr. Andrew Payton English, Waycross, died September 18, 1927, at the home of his niece at Jacksonville, Florida. He was born March 20, 1857. Dr. English was a graduate of Emory University and practiced medicine at Waycross for more than forty years and was one of the most prominently known men in the medical profession of south Georgia until he retired several years ago after sustaining an injury. He was past master of the Waycross Masonic Lodge, a member of the Knights of Pythias and the First Methodist church. Interment was in Lott Cemetery at Waycross.

Dr. Fountain G. Moss, Royston, died at his home September 24, 1927. He was born in 1863 and graduated from the University of Georgia Medical Department, Augusta, in 1885. Dr. Moss was one of the leading physicians of his community for many years and a member of a prominent family. He is survived by his widow, two daughters, Mrs. O. J. McConnell, Fayetteville, N. C., and Mrs. Stark Ginn, Royston. Interment was in Rose Hill Cemetery.

Dr. James E. Mangham, Reynolds, Georgia, died at his home on September 26, 1927. He was born in 1871 and graduated from Vanderbilt University School of Medicine, Nashville, in 1894. Dr. Mang-

ham was a prominent physician of his section and a successful business man. He was a member of the Masonic lodge, Taylor County Medical Society, Medical Association of Georgia, American Medical Association and the Methodist church. Dr. Mangham is survived by his widow, one son, Mr. John Mangham, Emory University; two brothers, Mr. James Mangham, Palmetto, Florida; Mr. Charles Mangham, Fernandina, Florida; two sisters, Mrs. Elza Williams and Miss Claudia Mangham, Sylvester. Funeral services were conducted from the home by Dr. J. P. Dell and interment in Hill Crest Cemetery.

MEDICAL ASSOCIATION OF GEORGIA

Office

ATLANTA, GEORGIA

FINANCIAL STATEMENT

Balance in Bank, May 1, 1926..... \$5,677.94
Total receipts from all sources..... 14,105.48

Total to be accounted for.....\$19,783.42

Balance in Bank, May 1, 1927..\$5,736.72

Total expenditures from May
1, 1926, to April 30, 1927.. 14,046.70

Total accounted for.....\$19,783.42

DISBURSEMENTS

May 1, 1926 to April 30, 1927

VOUCHERS

No.	Description	Amount
676—Allen H. Bunce, M.D.	Salary for April as Secretary-Treasurer	\$150.00
677—H. L. Rowe	Salary for April as Executive Secretary	150.00
678—E. K. Large, Postmaster	Postage	30.00
679—Southern Press Clipping Bureau	News clippings for April.....	5.00
680—Southern Stamp and Stencil Co.	Rubber Stamp, "Official Program"...	1.40
681—Lester Book & Stationery Co.	5000 yellow second sheets.....	3.25
682—Atlanta Blue Print Co.	Blue prints of floor space for exhibits at Albany.....	5.75
683—Lyon-Young Printing Co.	Printing and mailing April issue of Journal.....	566.00
684—Craighead & Craighead, Attys.	Fee of 20% for collecting account Doekstader Optical Co.....	13.10
685—H. L. Rowe	Expenses to Albany, annual meeting of Association.....	50.00
686—J. N. Reisman	Rent for May.....	21.50
687—Benj. F. Stovall	Multigraphing letters to county secretaries	4.00

688—Mr. M. M. Head, Councillor	Expenses incurred as Councillor for fiscal year.....	29.24
689—Mrs. Irene Snyder	On account for stenographic work reporting annual meeting of Association at Albany.....	150.00
690—Dr. R. T. Warnock	Services rendered, Scientific Exhibit, annual meeting of Association, Albany	35.00
691—West View Florist	Flowers for the unveiling of the statue of Crawford W. Long in Statuary Hall, Washington, D. C., ordered by President, Dr. Frank K. Boland.....	25.00
692—Dr. Frank K. Boland	Honorarium for President for 1925-26	150.00
693—Dr. S. J. Lewis, Councillor	Expenses incurred as Councillor for Tenth District.....	21.32
694—John Stokes	Drayage—Hauling five loads from City Auditorium to depot in Albany account some firm—supposed to be an Exhibitor.....	6.00
695—Dr. Cleveland D. Welchel, Councillor	Expenses incurred as Councillor for Ninth District.....	9.64
696—Allen H. Bunce, M.D.	Salary as Secretary-Treasurer for May	150.00
697—H. L. Rowe	Salary as Executive Secretary for May	150.00
698—Mrs. F. W. Goodroe	Operating Addressograph 55½ hours April, May and June.....	27.75
699—E. K. Large, Postmaster	Postage	30.00
700—J. N. Reisman	Rent for June.....	21.50
701—Southern Press Clipping Bureau	News clippings for May.....	5.00
702—Benj. F. Stovall	Multigraphing letters sent to members of the House of Delegates.....	2.50
703—The Lilley Company	539 Badges Medical Association of Georgia and 265 Badges Woman's Auxiliary	83.68
704—Fulton Printing Company	10,000 Envelopes	39.50
705—Southern Stamp & Stencil Company	Rubber Stamp used when mailing literature for Dougherty County Medical Society.....	1.65
706—Auld's, Incorporated	"Badge of Service" for President—14-kt. Gold Button.....	3.34

707—E. K. Large, Postmaster Postage for mailing the Journal.....	20.00	728—Atlanta Baggage and Cab Co. Hauling 23,000 Envelopes from the Southern Rwy. Depot.....	3.00
708—E. K. Large, Postmaster Postage for mailing the Journal.....	10.00	729—E. K. Large, Postmaster Postage	30.00
709—Lester Book & Stationery Co. Typewriter Ribbon, Letter Files, 1 ream Bond Paper.....	5.75	730—Allen H. Bunce, M.D. Salary as Secretary-Treasurer for July	150.00
710—Lyon-Young Printing Co. Printing and mailing Journal for May, 500 Programs, 2M Blanks, Hygeia, 200 reprints, Walter E. Sistrunk..	641.96	731—H. L. Rowe Salary as Executive Secretary for July	150.00
711—E. K. Large, Postmaster Postage	30.00	732—Lyon-Young Printing Co. Printing and Mailing July issue of Journal, blanks and samples for physicians directory and reprints for Dr. C. C. Bass.....	478.03
712—Dr. M. M. McCord, Councillor Expenses incurred as Councillor for Seventh District.....	12.00	733—Benj. F. Stovall Multigraphing letters to delinquent members and letters to members for physicians directory.....	29 60
713—H. L. Rowe Salary as Executive Secretary for June	150.00	734—Southern Press Clipping Bureau Clipping for June and July.....	10.00
714—Allen H. Bunce, M.D. Salary as Secretary-Treasurer for June	150.00	735—Addressograph Company Cleaning and repairing Addresso- graph	3.89
715—Dr. V. O. Harvard Expenses incurred as Councillor for Third District.....	23.60	736—Lester Book & Stationery Co. Gem Clips, Ink, Writing Pens, Car- bon Paper, Paste, Folders, Pencils and Typewriter Ribbon.....	15.25
716—E. K. Large, Postmaster 1500 Stamped envelopes to be used as as return postage from members of the Association.....	32.76	737—J. N. Reisman Rent for August, 1926.....	21.50
717—J. N. Reisman Rent for July.....	21.50	738—Mrs. F. W. Goodroe Operating Addressograph June, July and August.....	20.00
718—American Medical Association 1600 Health Examination Blanks....	10.80	739—Allen H. Bunce, M.D. Salary as Secretary-Treasurer for August	150.00
719—Southern Stamp & Stencil Co. Rubber stamp, "Letter sent 6 19-26".	.50	740—H. L. Rowe Salary as Executive Secretary for August	150.00
720—Lyon-Young Printing Co. Printing and mailing June issue of Journal	485.30	741—McEntyre Transfer Co. Hauling Manuals of Suggestions for Periodic Health Examinations and Blanks to post office for mailing..	1.00
721—Massachusetts Bonding & Ins. Co. Premium on Surety Bond for Treasurer of the Association.....	7.50	742—E. K. Large, Postmaster Postage for mailing Suggestions for Periodic Health Examinations and Blanks to secretaries of county societies	30.00
722—Craighead & Craighead, Attys. Fee for collecting account Dockstader Optical Co.....	13.20	743—American Medical Association 1600 Manuals for Suggestions for Periodic Health Examinations.....	128.00
723—J. P. Stevens Engraving Co. Engraving 1000 Letter Heads and 1000 Envelopes for President V. O. Harvard.....	33.20	744—Lyon-Young Printing Co. Printing and mailing August issue of Journal	451.28
724—E. K. Large, Postmaster Postmaster for mailing letters and blanks for Journal.....	30.00	745—Dr. Chas. Usher, Councillor Expenses incurred as Councillor for the First District.....	28.00
725—Mrs. Irene Snyder Balance account for reporting general meeting, House of Delegates, officers and Councillors of Association at annual meeting.....	290.02	746—Southern Press Clipping Bureau News clipping for August.....	5.00
726—Southern Express Co. Express charges on 3000 envelopes for mailing Journal.....	2.23	747—J. N. Reisman Rent for September.....	21.50
727—Agent, Southern Railway Co. Freight on 23,000 Envelopes for mailing Journal.....	9.87		

748—Benj. F. Stovall		770—Lyon-Young Printing Co.	
Multigraphing letters to county secretaries advising them that Manuals on Periodic Health Examinations and Blanks were being mailed....	2.50	Printing and mailing October issue of Journal.....	458.69
749—Lester Book & Stationery Co.		771—Dickert Company	
Wrapping paper and twine for mailing Manuals on Periodic Health Examination and Blanks.....	1.60	2400 Envelopes and 2400 Letter Heads for Councillors.....	24.00
750—Allen H. Bunce, M.D.		772—Southern Press Clipping Bureau	
Salary as Secretary-Treasurer for September	150.00	News clippings for October.....	5.00
751—H. L. Rowe		773—Union Envelope Co.	
Salary as Executive Secretary for September	150.00	25,000 Envelopes for mailing Journal	111.88
752—E. K. Large, Postmaster		774—E. K. Large, Postmaster	
Postage	30.00	Postage	30.00
753—M. M. McCord, M.D., Councillor		775—Allen H. Bunce, M.D.	
Expenses incurred as Councillor for Seventh District.....	10.00	Salary as Secretary-Treasurer for November	150.00
754—J. N. Reisman		776—H. L. Rowe	
Rent for October, 1926.....	21.50	Salary as Executive Secretary for November	150.00
755—Dr. S. J. Lewis, Councillor		777—Lyon-Young Printing Co.	
Expenses incurred as Councillor for Tenth District.....	20.00	Printing and mailing November issue of Journal.....	475.68
756—Craighead & Craighead, Attys.		778—Southern Engraving Co.	
Fee for collecting account Dockstader Optical Co.....	26.57	Cuts for illustrations for papers of Drs. Hunnicutt & Rayle, Athens, and Dr. Wm. H. Hailey, Atlanta..	19.86
757—Southern Stamp & Stencil Co.		779—Southern Press Clipping Bureau	
Rubber stamp for stamping stationery with new street number.....	.80	News clippings for November.....	5.00
758—Southern Press Clipping Bureau		780—Benj. F. Stovall	
News Clippings for September.....	5.00	Multigraphing letters to county secretaries and cards to delinquent members	4.50
759—Lester Book & Stationery Co.		781—C. L. Ayers, M.D.	
Typewriter ribbon, dater, rubber bands and twine.....	2.15	Expenses incurred as Councillor for Ninth District.....	7.52
760—Lyon-Young Printing Co.		782—Lester Book & Stationery Co.	
Printing and mailing the September issue of Journal.....	457.60	Pencils, typewriter ribbon, blank book and Gem clips.....	7.40
761—E. K. Large, Postmaster		783—Southern Stamp & Stencil Co.	
Postage for mailing Journal.....	20.00	Rubber stamp, "1927".....	.50
762—E. K. Large, Postmaster		784—Fulton Printing Co.	
Postage for mailing Journal.....	20.00	2000 Membership cards.....	14.25
763—Allen H. Bunce, M.D.		785—Addressograph Co.	
Salary as Secretary-Treasurer for October	150.00	250 Alloy plates and 1000 Buff cards	1.49
764—H. L. Rowe		786—J. N. Reisman	
Salary as Executive Secretary for October	150.00	Rent for December.....	21.50
765—E. K. Large, Postmaster		787—E. K. Large, Postmaster	
Postage	30.00	Postage	30.00
766—E. K. Large, Postmaster		788—Allen H. Bunce, M.D.	
Postage	30.00	Salary as Secretary-Treasurer for December	150.00
767—J. N. Reisman		789—H. L. Rowe	
Rent for November.....	21.50	Salary as Executive Secretary for December	150.00
768—Benj. F. Stovall		790—Bryan & Middlebrooks, Attys.	
Multigraphing letters sent to hospitals and druggists	2.75	Settlement of fee for Lawrence and Abraham, Attys., Savannah, representing Dr. Wm. Shearouse in suit of Hannah Nachomovshy.....	75.00
769—Collins Printing Co.		791—Lyon-Young Printing Co.	
Printing 500 cards—two forms sent to delinquent members.....	5.50	Printing and mailing December issue of Journal and notices for payment of dues.....	486.00

792—Southern Stamp & Stencil Co. Rubber stamp for proofs of ads.....	5.40	815—Dr. S. J. Lewis, Councillor Expenses incurred as Councillor for Tenth District.....	20.00
793—Southern Press Clipping Bureau News clippings for December.....	5.00	816—Southern Press Clipping Bureau News clippings for February, 1927..	5.00
794—J. N. Reisman Rent for January.....	21.50	817—Addressograph Co. Exchange in Addressograph Machines, Alloy Plates and Buff Cards.....	64.99
795—Southern Engraving Co. Cuts for paper of Dr. Hall.....	10.98	818—Dr. W. D. Kennedy Donation by Committee on Medical Defense for expenses in defending suit filed by Eunice Davis.....	200.00
796—Addressograph Co. Work on Graphotype machine.....	1.50	819—E. K. Large, Postmaster Postage for mailing Journal.....	15.00
797—E. K. Large, Postmaster Postage	30.00	820—E. K. Large, Postmaster Postage for mailing Journal.....	15.00
798—Collins Printing Co. 1850 copies of Dr. P. C. Quarterman's Address before the Eleventh Dis- trict Medical Society for mailing to members of the Association.....	18.50	821—E. K. Large, Postmaster Postage	30.00
799—Bryan & Middlebrooks, Attys. Retainer as attorneys for the Association for 1927.....	1,250.00	822—Kobak & Levy, Attys. One-half of fee suit of Dr. Geo. C. Mizell vs. Harry Friedman.....	100.00
800—Allen H. Bunce, M.D. Salary as Secretary-Treasurer for January	150.00	823—Allen H. Bunce, M.D. Salary as Secretary-Treasurer for March, 1927.....	150.00
801—H. L. Rowe Salary as Executive Secretary for January	150.00	824—H. L. Rowe Salary as Executive Secretary for March, 1927.....	150.00
802—Lyon-Young Printing Co. Printing and mailing January issue of Journal	466.58	825—Atlanta Blue Print Co. Drafting and making 50 blue prints of floor space for exhibits for the annual meeting of the Association to be held at Athens.....	9.50
803—Southern Press Clipping Bureau News clippings for January.....	5.00	826—Lyon-Young Printing Co. Printing and mailing 1900 copies of the March issue of the Journal, enclosing and mortising 2 electros.	465.98
804—Lester Book & Stationery Co. Typewriter ribbon .....	.75	827—Southern Press Clipping Bureau News clippings for March, 1927.....	5.00
805—E. K. Large, Postmaster Postage	30.00	828—Lester Book & Stationery Co. Erasers, index cards, pencils, T. W. ribbon and Gem clips.....	5.45
806—Allen H. Bunce, M.D. Salary as Secretary-Treasurer for February	150.00	829—J. N. Reisman Rent for April, 1927.....	21.50
807—H. L. Rowe Salary as Executive Secretary for February	150.00	830—Benj. F. Stovall Multigraphing letters in reference to program for the annual meeting of the Association	4.50
808—T. C. Thompson, M.D., Councillor Expenses incurred as Councillor for Twelfth District for years 1925, 1926 and to March, 1927.....	98.00	831—Fulton Printing Co. 10,000 Envelopes and 10,000 Letter Heads	65.00
809—Dr. C. L. Ayers, Councillor Expenses incurred as Councillor for Ninth District.....	10.02	832—Bryan & Middlebrooks, Attys. Expenses for Mr. Chauncey Middle- brooks, Atty., to Wayeross and return—suit of Dr. W. M. Folks vs. W. V. Thigpen.....	28.60
810—J. N. Reisman Rent for February, 1927.....	21.50	833—E. K. Large, Postmaster Postage	30.00
811—J. N. Reisman Rent for March, 1927.....	21.50	Brawner's Sanitarium, Smyrna, check re- turned unpaid, bank closed.....	7.50
812—Lyon-Young Printing Co. Printing and mailing Journal for February, 1927	465.38		
813—Lester Book and Stationery Co. Ink, typewriter ribbon and 1/2 doz. bottles paste	5.00		
814—Howard & Timms Binding ten volumes 1926 Journals..	15.00		

Doctors' Exchange, check returned, insufficient funds	4.50
Jno. S. Derr, check returned, insufficient funds	4.50
W. L. Harvey, check returned, bank closed	5.00
W. E. Floyd, check returned, insufficient funds	20.00
J. C. Collins, check returned, insufficient funds	35.00
J. A. Lee, check returned, insufficient funds	5.00
D. J. Rogers, check returned, insufficient funds	5.00
Fulton National Bank, exchange paid on checks	9.97

Total\$14,046.70

SOURCES OF INCOME

Advertising	\$5,303.88
Exhibit Space	250.00
Subscriptions and Journals sold.....	21.60
Membership Dues	8,530.00

Total\$14,105.48

DISBURSEMENTS

Classified

Journal	\$9,236.20
Councillors	313.34
Medical Defense	1,653.60
Publication Committee	100.86
Committee on Health and Public Instructions	159.90
Rent	258.00
Salaries	1,800.00
Honorarium for President F. K. Boland	150.00
Stationery for Association, president and Councillors, flowers for unveiling Crawford W. Long statue at Washington, postage, typewriter ribbons, ink, pens, pencils, paper clips, books, multigraphing, printing cards sent delinquent members, membership cards.	374.80

Total\$14,046.70

MINUTES OF THE COUNCIL

(Continued from page 383)

Terrell—		
Logan Thomas, Dawson.	11	11
Turner—		
J. H. Baxter, Ashburn	7	7
Totals	123	116

Within the fifteen counties that compose the Third Congressional District of Georgia, there are ten County Medical Societies, eight of which have every eligible physician living in the counties members of said society, making them one hundred per cent societies, viz:

Ben Hill County has 9 physicians, 9 members—100%.

Crisp County has 18 physicians, 18 members—100%.

Macon County has 9 physicians, 9 members—100%.

Randolph County has 18 physicians, 18 members—100%.

Stewart-Webster County has 14 physicians, 14 members—100%.

Turner County has 8 physicians, 8 members—100%.

Terrell County has 10 physicians, 10 members—100%.

Taylor County has 5 physicians, 5 members—100%.

Sumter County has 20 physicians, 18 members—90%.

Dooly County has 15 physicians, 10 members—66 $\frac{2}{3}$ %.

Clay County has 5 physicians, no society; one is a member of Randolph County Society.

Lee County has five physicians; none are members of any society.

Schley County has four physicians; none are members of any society.

Quitman County has only one physician living in the County and he is a member of Randolph Medical Society.

This includes all eligible physicians in the district.

CHAS. A. GREER,
Counsellor 3d District.

Fourth District: Dr. O. W. Roberts.

I have to get some information to complete my report. Our district seems to be rather steadily dropping off. I regret it and wish I could do something. I think our main loss came in Columbus which is usually the case in the larger places. Some loss in the other places it looks as though we might have made up. I thought I was getting along very well with the district when I had two counties organized that were not organized before. I think before the summer goes by most of our doctors will have paid up and our membership will be up to what it was last year. I have here the report Dr. Buncie gave me.

MEMBERS REPORTED FOR FOURTH DISTRICT	Members	Members
County and Secretary	1926	May 1, '27

Carroll—		
H. J. Goodwyn		
Carrollton ..	19	9
Chattahoochee—		
Coweta—		
A. A. Barge, Newnan	15	5
Harris ..		
Heard ..		
Marion ..		
Meriwether—		
R. B. Gilbert, Greenville	11	5

Museogee—		
O. D. Gilliam, Columbus	38	19
Troup—		
W. H. Hadaway		
LaGrange	32	23
Talbot—		
C. C. Carson, Talbotton	4	4
Totals	119	65

Fifth District: Dr. E. C. Thrash.

The report of this district is good. We are somewhat short in membership. We have three small counties that have few doctors. These are located around the Fulton County Medical Society. We have twelve members in DeKalb who pay up right along and we are not able to get any more in that county. We have but two or three in Douglas and about the same in Campbell. Occasionally they pay, sometimes they do not. There are about three or four in each of these counties. Fulton County Medical Society shows a shortage but they will all pay up. It runs about the same constantly. The men get hard up and fail to pay their dues promptly but they usually pay them. In other words, there is nothing wrong with Fulton County.

MEMBERS REPORTED FOR FIFTH DISTRICT		
County and Secretary	Members 1926	Members May 1, '27
Campbell—		
A. J. Green, Union City	7	4
Douglas—		
D. Houseworth		
Douglasville	4	
DeKalb—		
G. A. Duncan, Decatur	13	12
Fulton—		
Grady E. Clay, Atlanta	365	323
Fulton—Honorary, 27		
Rockdale		
Totals	389	339

The Secretary: Fulton County reports twenty-seven honorary members.

Dr. Thrash: Twenty-seven is not so many out of 325. These honorary members just get their county dues omitted. They still have to pay their state dues, so the state does not suffer. In a recent revision of the by-laws we provided for honorary members. We have no honorary members for the state.

The Chairman: What shall we do with our guest's expenses?

Dr. E. C. Thrash: I move that we pay it. Motion seconded and carried.

The Chairman: What shall we do about employing a lawyer to draft these bills that we endorse?

Dr. G. Y. Moore: I move that we employ a lawyer.

Dr. Clark: Where is the money to come from?

Dr. E. C. Thrash: I move that we vote \$100.00 to be used by the Legislative Committee in whatever way they consider expedient in furthering their work in medical legislation.

Motion seconded and carried.

The Chairman: The sum of \$3500.00 was granted to the Medical Defense Committee last year. They want the same this year. They spent \$2900.00 last year.

Dr. J. M. Anderson: I move that we give them the same amount as last year.

Motion seconded and carried.

The Chairman: The next order of business is the report of the Journal Committee.

Dr. E. C. Thrash: I will give merely an outline. We have employed an executive secretary and from the observations I have made of him he has done splendid work all the way through. There were some papers that were not published for various reasons; some not considered worthy of publication. The papers were graded 1, 2 and 3. The Journal is doing the best it can with regard to the publication of papers.

The Secretary: The Council has not given us any instructions on this one item of \$440.02 for reporting. Should that be charged to the Journal or is it an expense of the Association?

Dr. Clark: That is an expense of the Association.

The Secretary: When we obtained the services of Mr. Rowe as executive secretary we told him if he stayed with us and made a success of the journal, we would do everything possible to see that he was adequately paid for his services. He started off on a salary of \$125.00, because that was all the Council would allow. Later the Council increased that to \$150.00. I personally feel that \$150.00 is not adequate compensation for his work. He was getting more than that as cashier of the bank before he came with us. It seems to me it would be advisable to increase his salary.

Dr. E. C. Thrash: I move that the salary of the executive secretary be increased to \$175.00.

Motion seconded and carried.

The Chairman: Is the Auditing Committee ready to report?

Dr. C. K. Sharp: The Chairman is not here, but we have gone over the books and find everything correct. I move that the report be accepted.

Motion seconded and carried.

On motion, duly seconded and carried, the Council adjourned at 1:25 P.M., to meet on Thursday at the close of the morning session.

THIRD MEETING

The third meeting of the Council was called to order on Thursday, May 12, 1927, at 12:35 P.M., by the Chairman, Dr. T. C. Thompson, Vidalia.

Roll Call: The Secretary called the roll and the following Councillors responded:

Second District: C. K. Sharp, Arlington.

Third District: G. Y. Moore, Cuthbert (Vice-Councillor).

Fourth District: O. W. Roberts, Carrollton.

Fifth District: W. A. Selman, Atlanta (Vice-Councillor).

Sixth District: J. M. Anderson, Barnesville (Vice-Councillor).

Seventh District: J. H. Hammond, LaFayette (Vice-Councillor).

Ninth District: C. L. Ayers, Toccoa.

Tenth District: S. J. Lewis, Augusta.

Eleventh District: A. S. M. Coleman, Douglas.

Twelfth District: T. C. Thompson, Vidalia.

President Harvard, Secretary Bunce and Parliamentarian Clark were also present.

The Chairman: The first thing to come before the meeting will be the reports of the Councillors who were absent at the previous meetings.

REPORT OF COUNCILORS

Sixth District: Dr. J. M. Anderson, Vice-Councillor.

I have the following report from the Councillor, Dr. M. M. Head:

MEMBERS REPORTED FOR SIXTH DISTRICT

County	Members	Members
Society	1926	1927
Bibb	71	43
Butts	6	6
Honorary, 2		
Clayton-Fayette	7	8
Crawford (2 with Bibb)		
Henry	6	7
Jasper	6	6
Jones	3	2
Lamar	7	7
Monroe	7	7
Pike	7	8
Honorary, 2		
Spalding	20	16
Honorary, 1		
Upson	10	10

Honorary, 1

Totals	150	120
Total Honorary, 6		

This report shows a loss of 30 members from last year. However, final reports have not been received from all Secretaries.

I regret that our efficient Councillor, Dr. M. M. Head, is unable to attend this meeting. He is now at Wesley Memorial Hospital, having recently undergone an operation for appendicitis. He has requested me, as Vice-Councillor to finish up the work of the Sixth District for him. Dr. Head had almost completed his work so there was little left for me to do except to arrange this report from data already obtained.

Our District Society meets twice a year and is well attended. Its scientific programs are always interesting and creditable.

Every county in the Sixth District is organized except Crawford which only has two physicians, both of whom are affiliated with Bibb County Society.

Of the thirteen counties in the District at least five have 100% membership.

I believe the Sixth District is as well organized as any District in Georgia, yet there are too many eligible physicians who are not members. There is still need of a continuation of the splendid work that has been done by our Councillors during the past few years.

Respectfully submitted,

JNO. M. ANDERSON,
Vice-Councillor.

Seventh District:

(Continued in December issue)

EXCELLENT LOCATION FOR SALE

Unopposed location in cotton mill town of 1,500. Collections from \$5,000.00 to \$8,000.00 per year. Single man preferred. Position immediately. Only \$400.00 for office furniture and drugs. Act quick! L. W. P., care Journal.

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(Normal Graduate Lake Erie School of
of Cleveland, Ohio)

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Augusta, Ga.

THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA

PUBLISHED MONTHLY under direction of the Council

Volume XVI

Atlanta, Ga., December, 1927

No. 12

THE INJECTION OF THE UTERUS AND FALLOPIAN TUBES WITH IODIN- IZED OIL (LIPIODOL) AS AN AID IN DIAGNOSIS*

ROENTGENOLOGICAL STUDY OF CASES
LANTERN SLIDES

ED. H. GREENE, M.D. AND
ROBT. C. PENDERGRASS, M.D.
Atlanta

The information obtained by the gynecologist for the purpose of aiding diagnosis, until recently has been principally from the history of the case and the careful physical and laboratory examinations. The gradual improvement of the X-ray and accessories, and the development of the various contrast media, has broadened the field of usefulness of the X-ray in materially aiding the gastro-enterologist and the urologist.

Visualization of the pelvic organs was first suggested as a diagnostic aid in sterility. Sodium bromide has been used, but because of its lack of clearness, the method has received little notice. Inflation of the fallopian tubes was later introduced by Rubin and its value is well known.

The injection, into the uterus and fallopian tubes, of a non-irritating, non-toxic medium is an aid to diagnosis because:

1. It demonstrates the size and contour of the uterine cavity. (This is occasionally of value in certain fibroid conditions and in some cases of malignancy.)

2. It shows the position of the uterus. (This might decide the question of uterine or extra-uterine tumor.)

3. It demonstrates the patency or occlusion of the fallopian tubes and if occluded, the point of occlusion. In cases of sterility this feature may be particularly of value in deciding the feasibility of an operation. The length, position, and size of the canal of the patent tube may be demonstrated. (The possibilities of diagnostic aid here bring about the following considerations: (a) Sterility; (b) Salpingitis; (c) Tubal Pregnancy; (d) Hydrosalpinx or pyosalpinx; (e) Adhesions.

4. With careful technique and a good contrast medium it is, in our experience, a harmless procedure that is easily performed and the film interpretation is not difficult.

The solution used in the majority of our cases from which the slides were made was Lipiodol, (a French preparation of 40% iodine in poppyseed oil). In a few of the later cases an American product, Iodipin, was used. Iodipin is a similar product and seems to be just as good as Lipiodol.

Sicard and Forestier of Paris used Lipiodol in 1922 in the localization of spinal cord tumors. No harmful effects resulted. Later the solution was used in bronoscopic work. (Sergeant and Cottentot.) In 1923, according to Forestier, Portiet of France was the first to inject the solution into the uterine cavity for X-ray study.

Early in 1926 Dr. Forestier came to the United States and his demonstration of the value of Lipiodol impressed Dr. J. S. Derr, a former member of this association, who attended his clinic. One of us (Greene) collaborated with Dr. Derr in the use of this method of diagnosis. At that time we could find nothing in the available literature of value on this particular subject, so we devised our instruments and technique. Naturally we had many failures, but were fairly successful in several cases.

From the Departments of Gynecology and Roentgenology, Emory University School of Medicine.

*Read before the Medical Association of Georgia, Athens, Ga., May 11, 1927.



Instruments

Bivalve speculum; Syringe (metal) with canula attached; (Author's design). Extra canula; Uterine sound; Volsella forceps; Uterine dressing forceps; Sponge holding forceps; Medicine glass containing iodized oil; Medicine glass containing mercurochrome; 12 small gauze sponges.

We have used this procedure in about fifty cases, and in none have we seen any evidence of reaction or untoward effect, either immediately or subsequently. There is a suggestion of some therapeutic value to the injection, inasmuch as three or four of the patients with chronic salpingitis have reported a noticeable improvement, i.e., feeling better, marked decrease of the leukorrheal discharge, gain in weight, etc.

One of us (Greene) has operated on several patients following injections, and have therefore been afforded the opportunity of checking up on the diagnosis. A few cases have been operated upon by others, and their findings checked against the X-ray diagnosis.

TECHNIQUE OF INJECTION

Before coming to the X-ray room, the patient is given an enema and a cleansing vaginal douche. This is a routine procedure in all cases. When we began this work several films were of little value because of confusing shadows produced by gaseous distention of the intestines.

The patient is clothed in a night gown, placed upon the X-ray table in the lithotomy position and draped. The technique is carried out with a strict observance of the usual aseptic precautions. A vaginal examination is again made to verify previous findings and to especially ascertain the position of the cervix and fundus and to estimate the size of the organ. A bivalve speculum is then intro-



Apparatus attached to X-ray table to hold the syringe in place while X-ray exposure is being made; (Author's design).

duced and the cervix brought into view. The cervix and vagina are swabbed to remove mucous, and the cervix and exposed vaginal walls painted with 2% mercurochrome. (In some cases it is necessary to grasp the cervix with a volsella forceps and hold it firmly until the injection is finished and the exposure made.) The uterine sound is next introduced to rule out obstruction and to check up on the depth of the canal and position of the fundus. For the injection of the solution, we use an all-metal syringe of 15 cc. capacity with a metal canula screwed on. This type of instrument eliminates, to a large extent, leakage and breakage. A snug fitting, movable rubber cuff is on the cannula about 3 cm. from the tip. This cuff, during the injection, fits firmly against the cervix and prevents back-flow of the solution. The syringe, with canula attached, is filled with the solution; the air is forced out of the canula and the tip is introduced into the cervical os. Enough pressure is exerted to hold the rubber cuff firmly against the cervix, and the solution is slowly injected. It is essential that the amount of solution injected is sufficient to fill the uterus and tubes; otherwise the examination is of doubtful value. The amount used is from 5 cc. to 10 cc. The average is about 7 cc. In some cases as much as 15 cc. to 20 cc. are used. This variation shows the value of a careful preliminary examination to determine, as nearly as possible, the size of the uterus. With the Rubin test an instrument is used to measure the pressure. In making the test no pressure measuring apparatus seems practi-



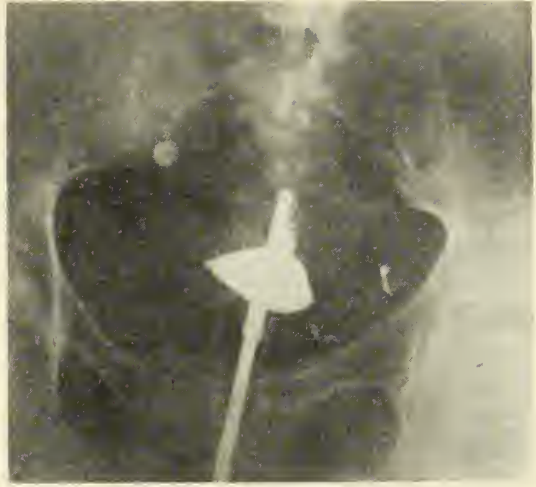
No. 8. Film No. 16168

Age 30 years.

Clinical findings: Chronic pelvic inflammatory disease with left tubo-ovarian mass and fibroid uterus.

X-ray findings: Large, slightly deformed uterus displaced to the right. Left tube is closed and the cornu points upward. Right tube is open and the cornu points downward. There is probably a fibroid uterus with a left tubo-ovarian mass displacing uterus to right.

Operation refused.



No. 9. Film No. 16058

Age 26 years.

Clinical findings: Relaxed perineum and cystocele. Bilateral salpingitis.

X-ray findings: Retroversion. Left tube poorly filled and occluded at fimbriated extremity. Right tube closed at cornu. (Note canula tip extending beyond shadow cast by cavity of the uterus. This condition is seen in practically all cases of retroversion and antelexion.)

Findings at operation: Right tube occluded at proximal half; firm and cord-like. Distal half of tube is patent. Left tube occluded at fimbriated extremity. Both tubes covered with thin adhesions. Bilateral cystic oophoritis. Retroversion, third degree.

cable; therefore, the examiner must depend upon his sense of touch and the statements of the patient. Soon after beginning the injection the patient complains of low abdominal pain just beneath the symphysis. This pain is caused by the distention of the uterus. The injection is stopped momentarily, and the pain subsides. Resuming the injection she usually complains of pain returning and extending to one or both lower quadrants. This pain is probably caused by the distention of one or both fallopian tubes. Again the injection is discontinued and the pain subsides. Resuming the injection the patient complains of a quick return of the pain so the injection is stopped, the syringe held firmly in place, either by hand or the attachment, and the X-ray exposure made. Upon removing the canula the solution is seen flowing from the cervix. The solution is sponged out, the speculum is removed, and the patient is allowed to get up, dress, and go home.

X-RAY TECHNIQUE AND INTERPRETATION

We employ a Buckey diaphragm to secure better detail. A large cone may be used with advantage. The setting is $4\frac{1}{2}$ inches spark gap, 25 miliamperes, 26 inches distance, 3 to 5 seconds time, double screens. An 11x14 cassette is usually large enough, although the use

of a 14x17 film may give added information about the pelvis and spine.

The interpretation of the films should involve not only a study of the injection itself, but a thorough review of the film for evidence of pelvic deformities, arthritis, calcified masses, bladder and ureteral stones, foreign bodies, etc. There are practically no shadows of a density sufficient to be confused with the Lipiodol, unless it be barium or bismuth remaining as the result of an examination of the gastro-intestinal tract, or their use as a therapeutic agent.

In addition to noting the filling of the tubes and the position and contour of the uterine cavity, the character of the filling of these organs should be noted, i. e., regular or smooth, evidence of outside pressure by extra-uterine tumors, smooth or ragged filling defects, etc.

CASE REPORTS

No. 1. X-ray No. 16481. A. B. Age 20. Clinical diagnosis: Dysmenorrhea and Leukorrhea-Anteversion. X-ray diagnosis: Anteversion; uterus displaced to right; right tube distended at distal end. Doubtful whether open. Left tube open. Refused operation.

No. 2 X-ray No. 14905. M. L. Age 21. Clinical diagnosis: Fixed mass in cul de sac, appears to be uterine body. X-ray diagnosis: Normal uterine cavity. Left tube open and elongated, probably salpingitis. Right tube closed at cornua. Operative diagnosis: Retroversion with adhesions. Bilateral salpingo-oophoritis. Tubes and ovaries mass of adhesions. Left tube open.

No. 3. X-ray No. 13278. S. C. Age 19. Clinical diagnosis: Uterus enlarged, firm and nodular. Firm masses in each fornix. Impression: Chronic endocervicitis; fibroid; chronic pelvic inflammatory disease. X-ray diagnosis: Fundus retroverted. Irregular uterine cavity, probably endometritis. Both tubes closed. Chronic pelvic inflammatory disease. Operative diagnosis: Bilateral salpingo-oophoritis. Right tube and ovary size of lemon, fixed. Left tube and ovary enlarged and fixed to broad ligament. Uterus normal size. Pathological diagnosis: Salpingitis and oophoritis. Tubo-ovarian abscess.

No. 4. X-ray No. 2889. Mrs. M. Age 32. Referred by Dr. C. E. Rushin. Examined for cause of sterility. X-ray diagnosis: Bicornute uterus, incomplete. Both tubes normal and open.

No. 5. X-ray No. 12936. J. D. Age 30. Clinical diagnosis: Lacerated cervix. Bilateral tubo-ovarian masses. X-ray diagnosis: Normal cavity. Right tube obstructed at cornua. Left poorly filled. Chronic pelvic inflammatory disease. Operative diagnosis: Cystic ovary left, chronic oophoritis right.

No. 6. X-ray No. 13455. E. S. Age 27. Clinical diagnosis: Retroversion with fixation. Tender fornices. Bilateral salpingitis. X-ray diagnosis: Normal uterine. Both tubes dilated and obstructed. Operative diagnosis: Bilateral salpingo-oophoritis. Adhesions both tubes and ovaries. Pathological diagnosis: Endometritis, chronic. Fibro-cystic oophoritis, proliferative salpingitis. Operation. Hysterectomy and bilateral salpingo-oophorectomy.

No. 7. X-ray No. 15039. G. P. Age 32. Clinical diagnosis: Chronic pelvic inflammatory disease, with leukorrhea. X-ray diagnosis: Normal uterus. Both tubes patent. Note globules of oil free in peritoneal cavity. Mixture of Lipiodol and olive oil. No operation.

No. 8. X-ray No. 16168. B. M. Age 30.

Clinical diagnosis: Chronic pelvic inflammatory disease; fibroid; left tubo-ovarian mass. X-ray diagnosis: Large deformed uterus, displaced to right. Left tube closed, cornu points upward. Right tube open. Probable left tubo-ovarian mass; fibroid displacing uterus to right. No operation.

No. 9. X-ray No. 16058. E. W. Age 26. Clinical diagnosis: Relaxed perineum and cystocele; bilateral salpingitis. X-ray diagnosis: Retroversion; left tube poorly filled, occluded at fimbriated extremity. Right tube not filled, closed at cornua. Chronic pelvic inflammatory disease. Operative diagnosis: Right tube occluded proximal half, firm and cord-like; distal half open. Left tube open throughout, but occluded at fimbriated end. Both covered with thin adhesions. Both ovaries cystic.

No. 10. X-ray No. 13250. M. M. Age 27. Clinical diagnosis: Large nodular fibroid; palpable mass in left fornix (pyosalpinx). X-ray diagnosis: Atypical uterine cavity. Both tubes occluded at cornua. Fibroid; chronic pelvic inflammatory disease. Operative diagnosis: Right ovarian cyst adherent to fundus. Bilateral salpingitis with dense adhesions, especially around left tube. Multiple fibroids. Pathological diagnosis: Fibroids; cystic ovary; salpingitis.

No. 11. X-ray No. 13600. P. P. Age 27. Clinical diagnosis: Chronic pelvic inflammatory disease. Cystic, adherent left ovary. X-ray diagnosis: Both tubes elongated, closed, and dilated in distal third. Normal uterine cavity. Operative diagnosis: Both tubes and ovaries densely adherent. Enlarged left ovary; thick nodular tube. Pathological diagnosis: Tubes sealed at fimbriated extremities. Cystic ovary left. Salpingitis.

No. 12. X-ray No. 13855. A. P. Age 42. Clinical diagnosis: Pelvis filled by firm irregular mass extending to umbilicus; fibroid. X-ray diagnosis: Deformed uterine cavity. Left tube closed near cornua. Obstruction and dilatation of right tube at distal end. Fibroid and hydro-salpinx. Operative diagnosis: Multiple fibroids. Chronic pelvic inflammatory disease with tubes adhered. Cystic ovaries. Pathological diagnosis: Concurs.

No. 13. X-ray No. 13856. D. B. Age 23. Clinical diagnosis: Retroversion; endocervicitis. Bilateral salpingitis. X-ray diagnosis: Retroversion. Both tubes closed. (Note cann-



No. 11. Film No. 13600

Age 27 years.

Clinical findings: Chronic pelvic inflammatory disease. Adherent left ovary.

X-ray findings: Both tubes elongated, dilated distally and sealed at fimbriated extremities. Normal uterine cavity.

Findings at operation: Both tubes and ovaries densely adherent. Enlarged left ovary; thick nodular type. Both tubes closed at fimbriated extremities.

ula tip beyond cavity.) Operative diagnosis: Retroversion. No adhesions or masses in pelvis. Suspension. (Note—Does not rule out endosalpingitis with tube obstruction.)

No. 14. X-ray No. 16330. M. M. Age 26. Clinical diagnosis: Uterus enlarged and slightly anteverted. Small fixed mass in right fornix. No mass on left, but tender. Chronic pelvic inflammatory disease and fibroid uterus. X-ray diagnosis: Large anteflexed uterus. Left tube normal. Right tube dilated at fimbriated end. Uterus displaced to the right. Calcified mass in left pelvis. Operative diagnosis: Left tube and ovary normal, and open. Right tube and ovary bound down with dense adhesions and tube closed. Right pyosalpinx.

No. 15. X-ray No. 16482. S. W. Age 27. Clinical diagnosis: Enlarged cervix. Normal uterus in size and position. Large, firm, fixed mass size of orange in cul de sac, pushing uterus forward. Chronic pelvic inflammatory



No. 14. Film No. 16330.

Age 26 years.

Clinical findings: Uterus enlarged and moderately anteverted. Small fixed mass in right fornix. No mass on left, but very tender. Impression: Chronic pelvic inflammatory disease and fibroid uterus.

X-ray findings: Large anteflexed uterus. Left tube patent. Right tube dilated at fimbriated extremity. (Tube is probably closed but tip of speculum interferes and causes confusion in making diagnosis.) Uterus displaced to right.

Findings at operation: Left tube and ovary apparently normal. The tube is open. Right tube and ovary bound down by dense adhesions and the tube is closed. (Right pyosalpinx.)

disease, and left pyo-salpinx. X-ray diagnosis: Large irregular uterine cavity. Left tube occluded, right open. Endometritis. Operative diagnosis: Bilateral pyo-salpinx. Both tubes enlarged to about twice normal size and bound down with adhesions. Uterus normal size. Right tube apparently open.

CONCLUSIONS

1. The use of Lipiodol in hysterosalpingography is discussed.

2. The technique and devices employed by the authors are presented.

3. Several cases are reported, giving the clinical, roentgenological, operative, and, where possible, the pathological findings.

4. We believe that the method is of definite diagnostic value in pelvic disease and in determining the cause of sterility.

5. No harmful results have, so far, been demonstrated in our cases.

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Sergent and Cottentot: Bull. de Soc. Med. Des Hop., Paris, May 11, 1923.
Ferre, L. Jour. de radiol. et d'electrol., Oct., 1925.
Due to lack of space only a few films are reproduced here.

DISCUSSION ON PAPER OF DRS. GREENE AND PENDERGRASS

Dr. E. C. Davis, Atlanta: I wish to commend this operative work as done by Dr. Greene. I think it is opening up a new and very valuable field in a line of work which has in a measure, been previously investigated and which has not had satisfactory results and which was at least attended with danger. I had the privilege of hearing Dr. Rubin's report in his original paper at the American Medical Association a number of years ago. I have never adopted his method or technic because of the fear of doing something more harmful by extending an infected condition in an already infected field and setting up a violent peritonitis. This method using a bland solution of iodine in poppyseed oil has obviated many of the dangers that this previously proposed plan of procedure did not offer. I believe the chief field for beneficial results in this work is to be achieved in the diagnosis and proper explanation of many of our cases of sterility. The whole world probably is taking more and more interest in the sterile woman, and if we can find out whether or not the tubes are patent, whether or not the tubes are deformed, whether or not the tubes are dilated, whether or not the tubes are constricted or whether there are any deformities toward them, we are making great progress toward learning something of sterility and in turn something about its correction.

I had Dr. Greene use this method in one case for me. This was a case of double pus tubes in which the woman had been previously treated by milk injections until the acute symptoms had subsided. After this had been done, with Dr. Lake's co-operation, they injected this patient at the sanatorium. The left tube was found with a number of small glandular-like conditions, showing the penetration of iodine solution into the tube. The right tube showed a partial constriction. The operation in which Dr. Greene assisted me we found a pus tube on the left side through which it looked impossible for material to pass, but it evidently did pass. The right tube was completely obliterated. Nothing could enter it. After injection the interesting feature about this case was that the patient had been relieved of pain in her side. Before operation she reported to my office completely relieved of pain and not suffering any discomfort. How the iodine did this I am unable to state, but Dr. Greene tells me that that has been his experience in a number of cases and that the relief of pain has been the result after the injection of iodine in poppyseed oil.

I think the method should be made more perfect, but it offers a valuable means of

diagnosis in these cases which are now interesting the general profession throughout the country.

Dr. C. H. Richardson, Jr., Macon: My associate, Dr. Rogers of Macon, was present at the Congress of American Physicians in Detroit early in 1926 when Forestier demonstrated this method there. He brought back some lipiodol with him and we began the use of it on my service in the Macon City Hospital. We injected about fifty patients and were very much pleased with the results we obtained. In none of these cases was there any reaction whatever. The injection was entirely painless except for just a little discomfort after distention of the uterus. None of these patients complained of any pain or discomfort after the injection. Most of these patients were sent in for a diagnosis of extra-uterine growths or the question of patency of the fallopian tubes. I remember one patient who was sent in with a mass in the hypogastrium with a diagnosis of fibromyoma of the uterus with a request for treatment. The patient was in a very feeble condition and was not a good subject for a hysterectomy. The mass was globular, very hard, and apparently was a fibroid growth but on injecting this case with lipiodol there was found one perfectly normal tube, entirely patent, and the other tube completely occluded at the cornu. We then realized that we were dealing with an extra-uterine growth, most likely an ovarian cyst. At operation an ovarian cyst was found which was removed with little difficulty.

When we come to the question of sterility, I think this method is an advantage. In the Rubin test while you can demonstrate patency of the tube, but at the same time when you find that the tube is obstructed you have no way of telling just where the obstruction is. In the case of lipiodol you get the point at which the tube is constricted. If the obstruction is along the fimbriated end of the tube, you are dealing with a condition that possibly plastic surgery may help. You know that operation is indicated. I have operated on seven of these patients within twenty-four hours after injection. In no case have I found any irritation from the lipiodol. Apparently the iodine is held in such perfect suspension that it is non-irritating. I believe it has been said that this substance does not respond to the ordinary tests for iodine. I am sure that the method is without danger.

One other suggestion that I believe was not mentioned, that is lifting up the table so the patient's hips are raised so the solution will not run out, because it does run out in spite of the rubber catheter. It will run out if X-ray exposure is not made very quickly. We found

it was a big advantage to use a portable machine in the operating room and it is less trouble than taking the patient to the X-ray room. If you attempt to take the patient to the X-ray room after the injection has been made, you are liable to lose so much of the lipiodol that you will not get a complete picture.

I think the method offers advantages over the Rubin test. I think it is a very successful one.

Dr. Robert C. Pendergrass, Atlanta (closing the discussion): I wish to thank the gentlemen for their discussion and to emphasize one or two points that Dr. Richardson has brought out. First, that the solution does no harm in the peritoneal cavity so far as we are able to determine. Second, absorption. The rate of absorption varies but little solution remaining after third day. The fact that we may have on one side a good ovary and tube may be of some aid in operating, because we may take out the tube and ovary on one side and leave the patient with a good tube and ovary on the other side. This method definitely separates the diseased and normal tube.

Dr. Richardson's suggestion about the Trendelenburg position we have not tried but we will.

I want to say that Dr. Greene is the major figure in this work. It has all been done at Emory University Division of Grady Hospital in the departments of Gynecology and Roentgenology, with the exception of one case. We are hoping to carry this work on. There are for far a total of fifty cases injected. We want to get 100 at least before stating definite conclusions.

SCIATICA

NEWDIGATE M. OWENSBY, M.D.

Atlanta

To paraphrase a quotation of a very ancient and honorable philosopher, it may be said that a diagnosis consists of two parts; the first, a statement of the diagnosis; the second, to make it good.

All medical practitioners have had occasion to realize that the first requirement is very much easier complied with than is the second. It may also be said that the latter difficulty is more often encountered in complaints diagnosed as a minor ill than is the case in the graver diseased conditions. The reason for this is quite often the patient's

fault. In the majority of the lesser complaints they demand an immediate diagnosis and should the physician hesitate to give this, the patient is lost to another practitioner. In the more serious complaints the patient is willing to give the physician sufficient time for a thorough examination, and whatever laboratory investigations he sees fit to make. Again, there are patients who think some diseases too plebeian for them to have, and either they mislead the physician with the symptomatology, or else they misquote him to their friends or physicians, and thereby place him in the light of not having made his diagnosis good.

Sciatica is a rare and unusual disease. A fact which the general medical public is not fully aware according to the diagnostic charts of any general hospital. In the majority of these cases the physician is misled by the history and subjective symptoms furnished by the patient.

At the present time, the writer has under observation, a patient suffering from a spinal arthritis of ten years' duration whose chart in at least four hospitals bear the diagnosis of sciatica. The history and subjective symptoms furnished by the patient, as well as her husband, were very misleading, and had it not been for the duration of the disease, the writer would doubtless have made the same mistake of the preceding twenty physicians who had treated her during her illness. Sciatica nearly always recovers in from three to six months.

During the past twenty years, many cases of rheumatism, sacralization of the lumbar vertebrae, spinal caries, tabes, periostitis, tuberculosis, or syphilis of the spine, and other conditions, have been referred to the writer by very able physicians in which a diagnosis of sciatica had been made. It is very evident that had the correct diagnosis been previously made they would never have been referred to a neurologist for treatment.

Orthopedic conditions are frequently very confusing. Recently a merchant of Florida was referred to the writer because of sciatica. His work in a wholesale grocery store necessitated that he keep standing on a concrete floor during his working hours. Some six

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Profession of Georgia
139 Forrest Ave., N. E., Atlanta, Ga.

DECEMBER, 1927

ALLEN H. BUNCE, M.D., Editor
H. L. ROWE, Business Manager

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M. M. HEAD, M.D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Reprints should be ordered within 30 days after the appearance of an article, since all type will be destroyed at the end of that time.

Editorial Department

THE SEASON'S GREETINGS

To each and every member of the Association we extend sincere greetings and best wishes for a Merry Christmas and a Happy New Year. May God's choicest blessings be showered upon you and yours during this Yuletide Season.

THE DIRECTORY ISSUE

In this, the directory issue of the Journal, will be found a complete list of members of the Association who have paid 1927 dues up to December 15th. No effort has been spared to make it both complete and accurate. The list for each county society was sent to the secretary for his corrections and approval before publication. There should be no errors but if such occur, please notify the Secretary-Treasurer immediately.

ANNUAL DUES FOR 1928 ARE PAYABLE

JANUARY FIRST

OUR MEMBERSHIP

In 1923 there were 3,274 physicians in Georgia. Of these 1,620 were members of the Association. This year we have only 2,935 physicians in Georgia, but 1,715 are members in good standing. This shows a healthy increase in percentage of membership and reflects increased interest in the affairs of the Association.

CONFERENCE OF STATE SECRETARIES

The annual conference of secretaries of constituent state medical associations was held at the headquarters of the American Medical Association in Chicago, November 18th and 19th. In addition to the secretaries, the editors of the state journals, the Board of Trustees of the A. M. A., the President, Dr. Jabez N. Jackson and the President-Elect, Dr. W. S. Thayer, were also present.

Dr. W. C. Woodward, Executive Secretary, Bureau of Legal Medicine and Legislation, discussed the Basic Science Law. Five states, Connecticut, Wisconsin, Minnesota, Nebraska and Washington have already passed the model Basic Science Law with only a few modifications. At the recent meeting of the Legislature in Georgia the bill was passed by the Senate with only a few dissenting votes but never came to a vote in the House since it was not put on the calendar by the rules committee.

The Federation Bulletin for September states: "It is confidently expected that the establishing of basic science boards will render a distinctive service by insuring that osteopaths, chiropractors and other drugless healers cannot get licenses without obtaining a fairly acceptable training in the fundamental sciences."

Dr. J. B. Morrison, Secretary, Medical Society of New Jersey, read a very interesting and constructive paper on "Periodic Conferences Between Officers of Associations of Adjoining States." These conferences have proved of remarkable benefit to the New England and Middle Atlantic States. We respectfully suggest that they be adopted by the Southeastern States.

There were a number of other helpful papers and discussions; notably, a suggestion that one meeting of every county society be devoted to "Economics and Social Medicine" and one to "Obstetrics and Midwifery"; suggestions for publicity for annual sessions of the state associations; lay publicity through a weekly news letter to all the newspapers of the state as now practiced by Kentucky and several other states; advice in reference to securing and arranging scientific exhibits for annual sessions; arranging for a forty-five minutes demonstration of periodic examinations of the apparently well; the free clinic; the constitution and by-laws of state and county societies, etc.

Dr. Henry O. Reik, Editor, Journal of the Medical Society of New Jersey, discussed "The Free Clinic." The ideas advanced correspond entirely with the resolutions adopted by the Medical Association of Georgia several years ago; that is, all free clinics should be under the supervision of the county medical societies and, in so far as possible, all free clinics should be conducted by the local profession.

These annual conferences are second only to the meetings of the House of Delegates of the American Medical Association in their help to the individual physician through organized medicine.

COMMITTEE ON SCIENTIFIC WORK

The Committee on Scientific Work for the next annual session of the Association held its first meeting in the office of the Secretary-Treasurer on Wednesday, December the 7th at 10 A. M. Those present were Dr. W. A. Mulherin, Augusta, President of the Association; Dr. V. P. Sydenstricker, Chairman of the Committee; Dr. F. K. Boland, Atlanta; and Dr. A. H. Bunce, Secretary-Treasurer. The Committee decided that:

1. Any member of the Association in good standing who has paid his 1928 dues may submit the title of a paper for the consideration of the committee in preparing the official program.

2. Each title must be accompanied by a synopsis of not more than fifty words so that the committee may have a better understanding of the nature of the paper.

3. March 15th, 1928, was set as the latest date for receiving titles.

4. The program will consist of, (1) the President's Address, (2) addresses by two invited guests, (3) eight clinics, (4) twenty-seven papers and (5) three alternates to take the place of any absentees.

HISTORY OF MEDICINE IN GEORGIA

The Committee on the History of Medicine in Georgia authorized by the House of Delegates at the annual session of the Association held in Athens, met in the Academy of Medicine, Atlanta, on December 7th, 1927, at 2 P. M. The meeting was called to order by the President, Dr. W. A. Mulherin. Many of the ex-presidents and officers of the Association were present. (A complete list will appear in the minutes of the Committee meeting.)

The President, Dr. Mulherin, requested the committee to elect its own chairman. Dr. E. C. Thrash was elected Chairman and the Secretary-Treasurer of the Association was requested to act as Secretary.

It was moved and adopted that the chairman appoint two members to serve with him and the President and Secretary-Treasurer as a subcommittee to proceed with the collection of material to be used in compiling a History of Medicine in Georgia. The Chairman appointed, as members of this subcommittee, Drs. F. K. Boland and M. A. Clark.

Dr. Mulherin moved that the committee recommend to the House of Delegates at the next annual session that the committee be continued permanently with all ex-presidents as members and the officers of the Association as members only during their terms of office. This was adopted.

After a general discussion by practically all members present the committee adjourned to meet again on the call of the Chairman.

Crawford W. Long Gold Medal: The Crawford W. Long Gold Medal will be awarded each year to that member of the Association presenting the best original research work. Members desiring to compete for this medal should submit the titles of their papers together with a synopsis of not more than fifty words to the Committee on Scientific

Woman's Auxiliary Medical Association of Georgia

OFFICERS

President.....	Mrs. Paul Holliday, Athens	President-Elect.....	Mrs. C. C. Hinton, Macon
1st Vice-Pres.....	Mrs. Marion T. Benson, Atlanta	2d Vice-Pres.....	Mrs. Wm. R. Dancy, Savannah
3d Vice-Pres.....	Mrs. H. L. Rudolph, Gainesville	Cor. Sec.....	Mrs. Guy O. Whelchel, Athens
Rec. Sec.....	Mrs. J. A. Selden, Macon	Treasurer.....	Mrs. Steward D. Brown, Royston
Parliamentarian.....	Mrs. James N. Brawner, Atlanta		

Delegates to A. M. A.

Mrs. C. W. Roberts.....	Atlanta	Mrs. H. M. Fullilove.....	Athens
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Delegates to S. M. A.

Mrs. T. L. Holcombe.....	Union Point	Mrs. Frank K. Boland.....	Atlanta
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Alternates

Mrs. Dan Y. Sage.....	Atlanta	Mrs. Chas. E. Waits.....	Atlanta
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work on or before March 15th, 1928. Dr. W. R. Dancy, Chairman of the Prize Essay Committee, requests that five copies of each paper be presented to the Secretary-Treasurer at the annual session so that each member of the committee may have a copy.

Abner Wellborn Calhoun Lectureship: Checks for the Abner Wellborn Calhoun Lectureship should be sent to Dr. F. K. Boland, Treasurer, Atlanta. Many members have already contributed from \$5.00 to \$100.00 each, but much more is needed in order to make it a complete success. Every member of the Association should be glad of the opportunity to help in this worthy undertaking.

Annual Dues: Membership dues of the Association are due and payable January 1st, 1928. Send your check for \$5.00, state association dues, plus the amount of your county society dues to the *Secretary of your County Society at once*. All dues must be paid through your *County Secretary*.

SCIATICA

(Continued from page 407)

months before a pain appeared in his right foot and heel. This had gradually traveled up to the sacro-lumbar region, and was so severe that he walked in a stooped position. His shoes had gradually worn until they were little more than moccasins. He stated that he had used arch supports and had been treated

by the best "bone doctor" in Florida but to no avail. This "bone doctor" had also had his foot X-rayed but did not find anything out of place. The history was a bit confusing until it was learned that this "bone doctor" was a chiropodist. He was then referred to a competent orthopedist, had proper shoes and arch supports fitted on him, and a speedy recovery ensued. The diagnosis made by the orthopedist was unequal distribution of weight and fallen arches.

Too much dependence can not be placed in roentgenograms in the diagnosis of sciatica; an arthritis that does not show may be the cause of the tender joints. The Lasague sign, which is thought to be pathognomonic of sciatica, may also be present in involvement of the nerve roots by the rheumatic process in the spine. Leukocytosis and elevation of temperature would eliminate sciatica in acute conditions, but this may or may not be absent in chronic arthritis. Locomotor ataxia can usually be ruled out by a spinal puncture. Cancer of the lower end of the spine is sometimes very difficult to differentiate, as the writer has reason to know. Several years ago he treated a case of this kind for six weeks before he discovered it to be cancerous.

The diagnosis of sciatica is by no means an easy one, and it would, therefore, be well to heed the warning of the ancient philosopher as paraphrased in the first paragraph of this article. Should a diagnosis be made of sciatica, be sure it can be made good.

Georgia State Association of Graduate Nurses

OFFICERS

President.....	Miss Annie Bess Feebeck, R.N. Grady Memorial Hospital, Atlanta	2nd Vice-President.....	Miss Jessie Veazey, R.N. St. Andrews Apt., Atlanta
1st Vice-President.....	Miss E. Alma Brown, R.N. University Hospital, Augusta	Treasurer.....	Miss Jane Van De Vrede, R.N. 105 Forrest Ave., N.E., Atlanta
Secretary.....	Mrs. Alma E. Albrecht, R.N. Georgia Infirmary, Savannah		

CONVENTION ECHOES!

The twenty-first annual convention of the Georgia State Nurses' Association was held in Macon last month, and pronounced the best convention the organization has ever held.

The only note of sadness throughout was the absence of Miss Lucy M. Hall of Savannah, the beloved and retiring president of the Association. Miss Hall sent a message of love and cheer and inspiration which was deeply appreciated by the members. A telegram was sent her during the meeting.

The Third District of the State Association, through its able president, Mrs. Mae M. Jones, and Miss Dora Kershner of the Macon Hospital, as chairman of the arrangements committee, played host to members and delegates.

The Woman's Auxiliary of the Macon Medical Society of Bibb County entertained the members delightfully at a tea the afternoon of Nov. 8th, at the home of Dr. and Mrs. John McAfee; and on Thursday members and delegates were guests of the Macon Medical Society of Bibb County at a barbecue at Lakeside. Wednesday evening the annual banquet was held in the Hotel Dempsey, followed by a dance.

Miss Margaret Dorn of Augusta, first vice-president of the Association, presided, in the absence of Miss Lucy M. Hall, president.

Reports of officers, district organizations, alumnae associations and committees gave evidence of progress in many directions. The alumnae reports were colored with the varied activities of these organizations. Messages of "Good Will" from absent members were a bright feature of the opening session, some coming from as far as distant Hawaii.

OPEN MEETING

A meeting open to the general public was held Tuesday evening in the beautiful city auditorium, and was well attended both by nurses and lay people. A large student body attendance from the several local hospitals added a great deal to the impressiveness of the occasion. Miss Jean Harrell, chairman of the Private Duty Section, presided. Dr. M. A.

Clark of Macon delivered the address of welcome, which was responded to by Miss Agnes P. McGinley of Athens.

The program centered around service to the sick, as viewed by the patient, the doctor and the nurse. Mrs. Walter D. Lamar of Macon, Regent of the Daughters of the Confederacy, was the first speaker, in her own charming manner stressing service rendered by the nurse to the patient, both from a serious and humorous point of view. She was well received.

Dr. W. A. Mulherin, president of the Medical Association of Georgia, spoke for "The Nurse and the Doctor," and none who heard Dr. Mulherin could fail to interpret his deep and abiding interest in the nursing profession, and his desire to secure the co-operation of nurses in bringing about an ideal service to the sick. "The nursing profession is founded on high ideals" said Dr. Mulherin. "Self-effacement, altruism, charity, sympathy and above all, efficient service to mankind. Nurses do not get sufficient credit for the fine work they do in getting patients well. In his daily ministrations, the doctor must often see many patients; but the nurse must remain by the bedside of her patient, recording temperature and pulse, making records for the doctor to draw his conclusions from, etc., etc. * * The medical and nursing professions should be close together, like a happy family—Florence Nightingale, the mother; the medical profession, the big brother, and the nursing profession the little sister. We know it was Hippocrates who lifted medicine out of the realm of the supernatural and placed it on a scientific and logical basis. It was Florence Nightingale who took the nursing profession literally and placed it on a substantial, efficient nursing basis. * * The medical profession is trying to answer the demands of the public today for greater efficiency and better service. You, as nurses, are co-operating also to this end. As you raise your nursing standards, you have better material with which to work, and you will answer the big demand. Do not take criticism too seriously. Remember the illustrious founder of your modern training,

Florence Nightingale. Remember that she denied herself the pleasures and comforts of a home, perhaps an alluring literary career (for she was a talented writer) and probably a romantic marriage, for the good of humanity. Her monument is more lasting than granite."

Miss Janet M. Geister, Director of Headquarters for the American Nurses' Association, who was an honor guest throughout the convention, gave an address on "The Nurse and the Changing Order." In part she said: "The subject of nursing is of great interest to all members of the community. The public loves and has always loved its nurse. The nurse loves her patient. There is nothing more beautiful, nor yet more practical, than ideal nursing service; but in the past few years we have observed a note of discord in the nursing ranks. This is common in many other professions. We have been hearing that the doctor and the patient think the cost of nursing service is too great; that the nurse is getting too specialized. 'Where is the old-fashioned nurse?' is being heard on many sides. But isn't it true that everything old-fashioned has practically gone out of date? Even the old-fashioned grandmother is now out of style. The nurse is no different than others.

"As a nursing profession we are organized to get people well; to work with the doctor in the interest of the patient. And so the nursing profession and the community is concerned with these things. What has disturbed this happy relationship between the nurse and her patient? The large turnover—restlessness—affects the standards of service. It doesn't bode well for the future, and so we are participating in a study under the auspices of the Grading Committee. The nurses in Georgia are co-operating, and the doctors have co-operated too. The idea behind the organization of this committee is to work out some basis for measuring the training of nurses. We have 2000 training schools in this country—almost 2000 different methods for training nurses. No wonder our position is difficult!

"What kind of nurse is needed? What does the community require and want? What does the doctor need?

"The results of a partial survey indicate that the doctor asks for 'Good general care' for his patient; 'An intelligent nurse,' etc. 'Good breeding, good background is positively required—a woman with character and foundation.'

"The Committee realized that complaints made were merely symptoms pointing to a

maladjustment. The fault is not with people, but with the new conditions. We are meeting a new order of things with an old method of work. We have gone from a 'one horse shay' to a 12-cylinder automobile. We have been working along on a small, individualistic basis; but conditions are vastly changed, and we are now convinced that an adjustment is necessary and possible only when all groups get together, just as you are doing here. Georgia has become renowned for its happy relationship between doctors and nurses. When you have this foundation, you can work out any problem. Co-operation is needed as never before."

Miss Geister explained how the nurse is losing rather than gaining in this new order of things. How she is averaging only eight months' employment out of every twelve, yet is not able to spend the remaining four months with profit to herself, or in recreation, but in idly waiting for calls which do not materialize—a dead loss. "Who pays for this waiting? The nurse. There is no way under her present unorganized status to rectify this," said Miss Geister. "The nurse takes greater loss than a member of any other profession. She does not work on a full time basis. Even the nurse working eight months is not getting eight months' pay. One month out of that eight she loses her income through uncollected bills, or reduced fees, or because she nurses some member of her family. * * The four months' waste is the nurses' cost; but the hours on duty when she is really not needed is costly to the patient, too. Many patients do not require full time service. It is conceded that an adjustment of nursing service to a shorter day could be arranged to the advantage of both patient and nurse, thereby lessening the cost to the patient for essential nursing service, and allowing the nurse time for recreation and study, or opportunity to serve another patient."

Miss Geister stated that the plan of hourly nursing was being tried as an experiment in a number of cities, and that it was working out to good advantage, for many patients require only a few hours of nursing care, and under the new plan this is possible. "Official Registries are increasing the number of nurses listed for this type of service, and the doctors are pleased with it. So are the nurses."

NOTE: Report of the convention will be continued in the January issue of The Journal, beginning with an account of the session of the State League of Nursing Education.

District and County Societies

OFFICERS

FIRST DISTRICT

President.....Lanier, L. F., Rocky Ford
1st Vice-Pres.....Myers, Wm. H., Savannah
2nd Vice-Pres.....Elarbee, G. W., Daisy
Sec'y-Treas.....Long, W. V., Savannah

SECOND DISTRICT

President.....Redfearn, J. A., Albany
Sec'y-Treas.....Watt, Chas. H., Thomasville

THIRD DISTRICT

President.....Stukes, J. T., Americus
Vice-Pres.....Daves, V. C. Vienna
Sec'y-Treas.....Greer, Chas. A., Oglethorpe

FOURTH DISTRICT

President.....Clark, W. H. LaGrange
Sec'y-Treas.....Callaway, Enoch, LaGrange

FIFTH DISTRICT

President.....Ansley, W. S., Decatur
Vice-Pres.....Barber, W. E., Atlanta
Sec'y-Treas.....Camp, R. T., Fairburn

SIXTH DISTRICT

President.....Miles, W. C., Griffin
Vice-Pres.....Miller, G. T., Macon
Sec'y-Treas.....Thompson, O. R., Macon

SEVENTH DISTRICT

President.....Wofford, W. E., Cartersville
Vice-Pres.....Harbin, R. M., Rome
Sec'y-Treas.....McCord, M. M., Rome

EIGHTH DISTRICT

President.....Johnson, J. E., Elberton
Vice-Pres.....Reynolds, H. I., Athens
Sec'y-Treas.....Carter, D. M., Madison

NINTH DISTRICT

President.....Davis, B. B., Gainesville
Vice-Pres.....Neal, L. G., Cleveland
Sec'y-Treas.....Bennett, J. C., Jefferson

TENTH DISTRICT

President.....Cranston, W. J., Augusta
Vice-Pres.....Revell, S. T. R., Louisville
Sec'y-Treas.....Ward, C. D., Augusta

ELEVENTH DISTRICT

President.....McMichael, J. R., Quitman
Vice-Pres.....Fleming, Albert, Folkston
Sec'y-Treas.....Reavis, W. F., Waycross

TWELFTH DISTRICT

President.....New, J. E., Dexter
Vice-Pres.....Edmondson, J. W., Dublin
Sec'y-Treas.....Cheek, O. H., Dublin

1927 HONOR ROLL

1. Crisp County, Dr. J. N. Dorminy, Cordele, October 6, 1926.
2. Randolph County, Dr. G. Y. Moore, Cuthbert, October 29, 1926.
3. Dougherty County, Dr. I. M. Lucas, Albany, Dec. 15, 1926.
4. Chattooga County, Dr. W. B. Hair, Summerville, Dec. 16, 1926.
5. Macon County, Dr. F. M. Mullino, Montezuma, Dec. 30, 1926.
6. Lamar County, Dr. Jno. M. Anderson, Barnesville, January 6, 1927.
7. Turner County, Dr. J. H. Baxter, Ashburn, January 13, 1927.
8. Pike County, Dr. M. M. Head, Zebulon, January 25, 1927.
9. Rabun County, Dr. J. A. Green, Clayton, January 27, 1927.
10. Murray County, Dr. E. H. Dickie, Chatsworth, January 27, 1927.

11. Taylor County, Dr. J. C. Hind, Reynolds, January 29, 1927.
12. Jasper County, Dr. E. M. Lancaster, Shady Dale, February 9, 1927.
13. Terrell County, Dr. Logan Thomas, Dawson, February 24, 1927.
14. Butts County, Dr. J. Lee Byron, Jackson, March 30, 1927.
15. Franklin County, Dr. Stewart D. Brown, Royston, April 11, 1927.
16. Ware County, Dr. K. McCullough, Waycross, April 12, 1927.
17. Wayne County, Dr. M. N. Stow, Jesup, April 12, 1927.
18. Stephens County, Dr. C. L. Ayers, Toccoa, April 18, 1927.
19. Barrow County, Dr. W. L. Mathews, Winder, September 24, 1927.
20. Upson County, Dr. R. L. Carter, Thomaston, November 30, 1927.

1928 HONOR ROLL

1. Randolph County, Dr. G. Y. Moore, Cuthbert, September 20, 1927.
2. Turner County, Dr. J. H. Baxter, Ashburn, November 15, 1927.
3. Terrell County, Dr. Logan Thomas, Dawson, December 1, 1927.
4. Pike County, Dr. M. M. Head, Zebulon, December 3, 1927.
5. Ben Hill County, Dr. L. S. Osborne, Fitzgerald, December 8, 1927.

SEVENTH DISTRICT MEDICAL SOCIETY

Dalton, Ga., Sept. 28, 1927.

The Seventh District Medical Society of Georgia met in Dalton Wednesday, September 28, 1927, at 10 A.M. Dr. W. E. Wofford, President, and Dr. M. M. McCord, Secretary.

The sessions were held on Roof Garden, Hotel Dalton, and a most delightful luncheon was served at 1 P.M. at Hotel Dalton.

Dr. M. M. McCord, Councillor, made his report and urged a greater effort on all members in helping to build up the State Association.

Drs. W. A. Mulherin and A. H. Bunce, President and Secretary, respectively, of the Georgia Medical Association were introduced and each addressed the meeting, making very interesting talks for the good of the State Association.

The minutes of the Rome meeting were read and adopted.

The scientific papers were then read as follows:

1—Supra-Pubic Prostatectomy, R. M. Harbin, Rome.

Discussion was led by P. O. Chaudron and W. E. Benson.

2—Report of Interesting Cases, J. C. Rollins, Dalton.

Discussion led by J. L. Campbell, Atlanta, and W. A. Mulherin, Augusta.

3—Kidney Colic, J. L. Garrard, Rome.

4—Cancer Control (open to public), J. L. Campbell, Atlanta.

This most interesting and instructive address was attended by quite a few ladies of the city.

5—Intussusception, J. T. McCall, Rome.

Read by A. C. Shamblin, Rome. Discussion by M. M. McCord, C. V. Wood, W. E. Benson, W. A. Mulherin, R. M. Harbin, A. C. Shamblin and R. S. Bradley.

6—Gastric Ulcer, A. H. Dellinger, Rome.

Discussed by Trammell Starr.

7—Trials of a Country Doctor, W. M. Kemp, Marietta.

8—Preventive and Non-Operative Treatment of Appendicitis, Dr. J. W. Clements, Subigna. (The oldest practitioner in Georgia.)

It was moved and carried that Dr. J. C. Rollins report his case of an infant of ten hours with appendicitis followed by operation with good results, to the A. M. A. Journal.

Motion was made and carried expressing thanks to the Whitfield County Medical Society for their wonderful hospitality to the convention.

Motion was made and carried extending thanks to Miss Blanche Wilkins for the beautiful flowers used in decorating the lunch table and the rosebud souvenirs presented each member.

Dr. C. V. Wood of Cedartown, invited the Seventh District Medical Society to be the guests of the Polk County Medical Society in Cedartown at the next meeting, the first Wednesday in April, 1928, which was unanimously accepted.

There being no further business the meeting adjourned.

M. M. McCORD, M.D.,
Secretary.

TERRELL COUNTY MEDICAL SOCIETY
MEETING

Regular monthly meeting was held at the offices of Dr. S. P. Kenyon, Dawson, Monday afternoon, October 3, 1927. Eighty per cent of the members being present.

We had as our guests Drs. G. Y. Moore and Patterson, Cuthbert; Drs. A. L. Crittenden, F. M. Martin, and E. C. McCurdy, Shellman; Dr. W. W. Binion, Benevolence, and Dr. J. B. Stapleton, our dental friend of Dawson.

The following paper on the scientific program was read:

Puerperal Eclampsia—Its Prophylaxis and Treatment by Dr. Lucius Lamar, Dawson. Discussed by Drs. A. L. Crittenden, Guy Chappell, G. Y. Moore and Jno. H. Lewis.

Interesting case reports were made by Drs. S. P. Kenyon and Lucius Lamar, Dawson, and E. C. McCurdy, Shellman.

Dr. R. E. Bowman, President, presided.

November meeting was held at the offices of Dr. Guy Chappell, Dawson. Dr. S. P. Kenyon, Dawson, read a paper.

Respectfully,
LOGAN THOMAS, M.D., Secy.

NEWS ITEMS

The Second District Medical Society met at Albany on October 14th as the guest of Dougherty County Medical Society. The following papers were read: Nephritis—Its Functional Aspect by Dr. W. W. Jarrell, Thomasville; The Story of Richard Bright After One Hundred Years by Dr. Allen H. Bunce, Atlanta; The Control or Cure of Pernicious Anemia by the Minot-Murphy Liver Diet by Dr. Seale Harris, Birmingham; Acriflavine in the Treatment of Infant Diarrhoea by Dr. W. L. Wilkinson, Bainbridge; Pathological Reviews of Thyroid Diseases with Clinical Differentiation by Dr. F. K. Neil, Albany.

Dr. Frank R. Bealer, Lieutenant Commander (M.C.) U. S. Navy, began taking a three months' general Post Graduate Course at the New York Polyclinic Medical School and Hospital, New York City, on October 1. This is the fifth Post-Graduate Course taken by Dr. Bealer since graduating at Emory School of Medicine in 1917.

Mrs. Saint Julien Cullum, Augusta, announces the opening of a Studio of Speech-Reading at 510 Greene Street, using the Kinzie Method, giving private lessons and graded practice classes. She

is normal graduate from Lake Erie School, Cleveland, Ohio.

Dr. Dan Y. Sage announces the removal of his offices to 1103 Medical Arts Building, Atlanta.

Dr. Evans B. Wood announces the opening of a Clinical laboratory at 605 Medical Arts Building, Atlanta.

Dr. J. R. Garner, Atlanta, chief surgeon of the Atlanta and West Point Railroad, Georgia Railroad and Western Railway of Alabama, was elected President of the Association of Railway Chief Surgeons at a meeting held at Chicago, November 1. Dr. Garner is president of the Southern States Association of Railway Surgeons, Chairman of Occupational Diseases of the American Medical Association.

The Wilkes County Medical Society entertained and dined the physicians of adjoining counties at Washington on October 11th and had as their guests, President, Dr. W. A. Mulherin, Dr. C. I. Bryant, Dr. J. W. Gray and Dr. Paul Eaton of Augusta.

Drs. W. H. Clark and D. E. Morgan, LaGrange, attended the Interstate Post-Graduate Assembly of North America on October 14-17 at Kansas City, Missouri.

Dr. W. R. Webb, formerly of Columbia, Tennessee, has removed to Alma, Bacon County.

Dr. R. M. Harbin, Rome, was elected as a member of the Board of Directors of the American College of Surgeons.

Dr. O. N. Pendergrass, Monroe, has opened offices in the Day-Robertson Building, formerly occupied by Dr. J. K. McClintic.

Dr. I. H. Hunter, formerly of New Smyrna, Florida, has removed to Cedartown and opened offices over the Liberty National Bank for the practice of medicine.

Dr. W. Frank Wells, Atlanta, was the principal speaker at the educational meeting of the Masonic lodge at Augusta on October 20th.

Dr. E. C. Seawright, Fayetteville, was declared legally elected mayor of that city in a decision handed down by Judge A. J. Mundy of Jonesboro. The election was contested by the present mayor.

The Seventh District Medical Society will hold its next semi-annual meeting at Cedartown in April.

BARBECUE AT BOULDER CREST

The Barbecue at Boulder Crest, the home of Dr. E. C. Thrash, in honor of the Fulton County Medical Society, was given on November 5th. This is an annual event and has apparently become an institution. The doctors look forward through the whole year in expectancy of the pleasures they all know that is in store for them. Dr. Thrash says that it takes two geniuses to make a barbecue a success—one to prepare the folks for the food, and the other to prepare the food for the folks. For the past ten years his has been a series of successes, so it is apparent that he is right in his premises. This year the following men acted as hosts to aid in making the doctors believe that they had had the time of their life: Nevin Adkins, Marion Benson, Rex Barfield, Leon Brawner, T. T. Crews, B. McH. Cline, Herschel Crawford, Grady Clay, Gabe Cohen, H. G. Carter, Chas. Downman, Eugene Daniel, Walter Emery, Frank Eskridge, John Floyd, M. T. Harrison, Francis Jones, Hugh Lokey, Jack Landham, E. A. Lang, W. C. Lyle, Newdigate Owensby, M. C. Pruitt, Bill Roberts, W. A. Selman, Theodore Toepel, E. C. Thrash, Charlie Waits and Frank Wells. This is one occasion when all the doctors of Atlanta are supposed to assume a oneness of fellowship and a oneness of purpose, that purpose being to lay aside all prejudices, factional feelings, jealousies, dislikes and dissensions, and to learn how much good and how little bad there is in us all. We were present on this festive occasion, and the doctor who did not have the time of his life on that day was the one who was not present. Boulder Crest is one of the most beautiful home sites that it has been our pleasure to see and its beauty does not only make the setting the finest we have seen for a place to live, but it seems that in the planning, the idea of arranging a place for the old time Georgia barbecue must have been uppermost in the mind of the designer. Dr. Thrash and his aiding hosts naturally felt pompous and felt they were playing very important parts but we observed the whole situation carefully, and if Mrs. Thrash and Mrs. Booker, his daughter, had been out of the picture the results would have been quite different. They are the dynamos that put these eventful occasions over with such phenomenal success.

NEWS TEMS (Cont.)

The Eleventh District Medical Society held its fall meeting at Folkston, October 18. Dr. B. H. Minchew, Waycross, was chairman of the program committee. The meeting was called to order by Dr. Kenneth McCullough, Waycross; Invocation by Rev. L. V. Williams, Folkston; Address of welcome by Dr. Dallas Williams, Folkston; Response to welcome address by Dr. J. W. Simmons,

Brunswick; Dr. J. R. McMichael, Quitman, read a paper on "Management of Pregnancy."

Address by President, Dr. W. A. Mulherin, Augusta. The following papers were read at the Public Health Meeting under the auspices of the Ladies' Clubs of Folkston: The Health Situation in Charlton County from a Physician's Standpoint by Dr. A. Fleming, Folkston; Public Health from a Business Man's Standpoint by Mr. W. M. Mizell, Jr., Folkston; The Value of a Full Time Health Officer by Dr. M. E. Winchester, Director of County Health Work.

Dr. Geo. E. Atwood, Wayercross, Health Officer for Ware County, began making regular visits to the schools of the county on October 3rd to administer vaccines and hook worm treatment.

The Davis-Fischer Sanitarium, Georgia Baptist Hospital, Grady Hospital, St. Joseph's Infirmary, Atlanta; Wesley Memorial Hospital, Emory University; Scottish Rite Hospital, Decatur; John D. Archbold Memorial Hospital, Thomasville; University Hospital and Willenford Hospital, Augusta; City Hospital, Columbus; Downey Hospital, Inc., Gainesville; Macon Hospital, Macon; Wise Sanitarium, Plains; Harbin Hospital, Rome; Atlantic Coast Line Hospital, Wayercross, have been approved by the American College of Surgeons.

Dr. W. J. Waits, formerly of Flovilla, has opened offices at Gray. He has many patients in Butts and Jasper county where he has practiced for many years.

Drs. Kenneth McCullough, Wayercross; W. A. Norton and Geo. H. Lang, Savannah; A. R. Rozar and C. H. Richardson, Macon, were elected to fellowship in the American College of Surgeons and attended the meeting at Detroit on October 7.

Dr. I. T. Catron announces the removal of his office to 325 Candler Building, Atlanta.

Dr. M. P. Pentecost announces the change of his office address to 325 6 Candler Building, Atlanta.

Dr. T. L. Byrd announces the opening of an office at 703 Medical Arts Building, Atlanta.

The Georgia State Board of Health has been very active in getting as complete registration of births and deaths in Georgia as possible to be admitted in the registration area of the Federal annual report.

The Eleventh District Medical Society will hold its next meeting at Brunswick in April, 1928.

The Directors and Executive Committee of the Georgia Tuberculosis Association held a business session at the Winecoff Hotel, Atlanta, November 4.

The Executive Committee of the Atlanta Alumni Association of the University of Georgia met at the office of Mr. Harold Hirsch, Atlanta, November 2.

The Georgia Medical Society appointed Drs. A. A. and J. E. Morrison at its semi-monthly meeting held October 25 to try to ascertain the cause of the increase in the number of cases of malaria in Savannah. Dr. Wm. R. Dancy read a paper on the "Fractures of the Elbows"; discussed by Drs. Wm. H. Myers and Chas. Usher.

Dr. T. M. Hall, Milledgeville, was elected Vice-President of the Board of Trustees of the State Sanitarium at Milledgeville.

1st Lt. Frank L. Belyeu, Dent-Res., 610 Candler Bldg., Atlanta, Ga., is relieved from the 527th Engrs., and assigned as Asst. Dental Surgeon, 67th Coast Artillery.

Capt. Pope B. Holliday, Dent-Res., 247 Woodlawn Ave., Athens, Ga., is relieved from General Hospital No. 10, and assigned to the 82nd Division.

Major William L. Bethea, Dent-Res., is relieved from General Hospital No. 91, and assigned to the 63rd Cav. Div.

Capt. Melton D. Council, Med-Res., McRae, Ga., is relieved from 382 Service Battalion and assigned to 420th Engr. Battalion.

Capt. Murdock S. Euen, Med-Res., 401 Grand Bldg., Atlanta, Ga., relieved from General Hospital No. 43 and assigned to 344th Med. Regt., Hosp. Co. No. 431.

Capt. Joseph R. Barfield, Med-Res., 436 Peachtree St., Atlanta, Ga., is relieved from General Hospital No. 43 and assigned to Ambulance Co., No. 432.

Major Herbert B. Kennedy, Med-Res., 1002-11 Flat Iron Bldg., Atlanta, Ga., is relieved from Gen. Hosp. No. 90 and assigned to 67th Coast Artillery, as Surgeon.

Dr. Robert P. Adams, formerly of Bethlehem, has moved to Winder and opened offices at 413 Winder National Bank Building. He will do general practice but will devote most of his time to Gynecology and Obstetrics.

MINUTES OF THE COUNCIL
(Continued from the November Issue)
REPORT OF TENTH DISTRICT

I was unable to be present at the first session of the Council, so Doctor Allen, Vice-Councillor, was asked to make my report. I find now that it was not possible for him to attend.

The Tenth District is progressing very well. Between the District and Richmond County Societies the whole area is covered more satisfactorily than at any previous time.

Several of the counties of the District have no medical societies, but in all of these the men attend nearby organizations. The few physicians in these localities prefer going to Washington, Baldwin and Richmond meetings.

S. J. LEWIS, Councillor.

MEMBERS REPORTED FOR SEVENTH DISTRICT

County and Secretary	Members 1926	Members May 1, '27
Bartow—		
A. L. Horton		
Talorsville	14	13
Catoosa—		
Chattooga—		
W. B. Hair, Summerville	12	10
Cobb—		
R. W. Fowler, Marietta	22	16
Dade—		
Floyd—		
J. H. Mull, Rome	26	27
Gordon—		
R. B. Chastain, Calhoun	13	8
Haralson—		
W. H. Malone, Tallapoosa	1	
Murray—		
E. H. Dickie, Chatsworth	7	7
Paulding—		
J. I. Simmons, Hiram	1	
Polk—		
P. O. Chaudron		
Cedartown	11	9
Walker—		
J. H. Hammond		
Lafayette	17	17
Whitfield—		
E. O. Shellhorse, Dalton	12	10
Totals	136	117

NEW COUNCIL

The first meeting of the new Council was called to order on Friday, May 13, 1927, at 1:15 P.M. by the Secretary, Dr. Allen H. Bunce, Atlanta.

Roll Call: The Secretary called the roll and the following Councillors responded:

First District: W. H. Myers, Savannah.

Third District: G. Y. Moore, Cuthbert (Vice-Councillor).

Fourth District: O. W. Roberts, Carrollton.

Fifth District: W. A. Selman, Atlanta (Vice-Councillor).

Sixth District: J. M. Anderson, Barnesville (Vice-Councillor).

Eighth District: B. C. Teasley, Hartwell (Vice-Councillor).

Ninth District: C. L. Ayers, Toccoa.

Tenth District: S. J. Lewis, Augusta.

Eleventh District: A. S. M. Coleman, Douglas.

Twelfth District: T. C. Thompson, Vidalia.

President Mulherin, Secretary Bunce and Parliamentarian Clark were also present.

The Secretary: The object of calling you together immediately after the adjournment of the session is for the purpose of organizing the Council for the coming year. The first order of business is the election of a chairman.

It was moved that Dr. T. C. Thompson, Vidalia, be elected chairman.

Motion seconded and carried.

The Secretary declared Dr. Thompson elected.

The Secretary: The next order of business is the election of a clerk who shall keep the records of the Council meetings.

It was moved that Dr. M. M. Head, Zebulon, be elected clerk.

Motion seconded and carried.

The Secretary declared Dr. Head elected.

The Secretary: For the information of the new members of the Council, I would like to call attention to the fact that the by-laws, pages 10 and 11, give the duties of the Councillors. Everything the Councillor is supposed to do is covered in that section.

On motion, made and seconded, it was voted that the Council adjourn *sine die*.

ALLEN H. BUNCE,
Secretary-Treasurer.

BLOOD VESSEL VISUALIZATION

Experimental work was undertaken by John B. Carnett and Sigmund S. Greenbaum, Philadelphia (Journal A. M. A., Dec. 10, 1927), to determine whether or not visualization of the vessels was possible in the living subject. They found that 6 cc. of iodized oil may be injected into the femoral artery of the average man with perfect safety, and yield good roentgenograms. This is not only an excellent but also a harmless means of vascular exploration, particularly of the vessels of the lower extremity.

BOOKS RECEIVED

Potassium and Tartrates, A Review of the Literature on Their Physiological Effects by Ralph W. Webster, Ph.D., M.D., Professor of Medical Jurisprudence in University of Chicago, (Rush Medical College) Chicago, Illinois; Director of Chicago Laboratory, with a Digest and Bibliography of the Literature by W. A. Brennan, A.B. Published by The Commonwealth Press, Chicago.

Cultivating the Child's Appetite by Charles Anderson Aldrich, M.D., Associate Attending Physician, Children's Memorial Hospital, Chicago; Consulting Pediatricist, Chicago Municipal Tuberculosis Sanitarium; Attending Physician, Evanston Hospital, Evanston, Illinois, with a foreword by Clifford G. Grulee, M.D., Professor Pediatrics, Rush Medical College, University of Chicago, Chicago. Publishers: The Macmillan Company, 60 Fifth Avenue, New York.

Tobacco and Physical Efficiency, A Digest of Clinical Data, (With Annotated Bibliography) by Pierre Schruppf Pierron, M.D., Professor of Clinical Medicine, University of Cairo. Preface by Henri Vaquez, M.D., Professor of Medicine, University of Paris. Published under the auspices of The Committee to Study the Tobacco Problem. Foreword by Alexander Lambert, M.D., President. Contains 134 pages. Publishers: Paul B. Hoeber, Inc., 76 Fifth Avenue, New York City. Price, \$1.85.

BOOK REVIEW

The Fifth Avenue Hospital Clinics. Paul B. Hoeber Co., New York City. Price \$5.00.

This book is the first of a series of books edited by the attending staff of the Fifth Avenue Hospital to be known as the Fifth Avenue Hospital Clinics. The material used in this book is taken from papers presented at the semi-monthly staff meetings. Also reprints of some articles published in connection with cases in the hospital are included.

While the articles presented in this book are brief and do not attempt to present exhaustive information on the subjects discussed there is much of interest in the book. Recent advances in treatment and diagnosis are discussed and new methods suggested.

The chapter on the organization and management of the dietary department is of interest. Dr. John W. Pangburn gives a nice discussion on the management of cases with enlarged prostate glands. The chapter on diet in diabetes by Dr. Charles Tenney is of especial interest.

In a book of this nature the personal ideas and methods of the various authors are expressed with much more freedom and candor than in a text book. This I think is one of the chief values of this book.

The publication of this book will undoubtedly prove of inestimable value both to the patients and staff of the hospital.

MARK S. DOUGHERTY, M.D.

OBITUARY

Dr. Robert Earl Brinson, Wrightsville, died September 28, 1927. He was born in 1895 and graduated from Emory University School of Medicine in 1914. Dr. Brinson was a member of the Johnson County Medical Society, Medical Association of Georgia, American Medical Association, and Shrine. He is survived by his widow, four children: Robert, Mary Jane, Edison and J. W.; four brothers: J. W., Jr., Judge W. C., and D. T. Brinson, Wrightsville; Dr. C. E. Brinson, Fort Lauderdale, Florida, and one sister, Mrs. R. B. Bryan, Jr., Wrightsville. Funeral services were conducted from the Wrightsville Methodist church by Rev. T. M. Luke, Dr. Rufus W. Hodges, Presiding Elder Reese Griffin and Rev. D. R. Piper. Interment in West View cemetery.

Dr. Allen J. Fowler, Hogansville, died October 11, 1927. He was born in 1857 at Waverly, Alabama, and graduated from Emory University School of Medicine. Dr. Fowler moved to Hogansville about thirty years ago and built up a large practice, being one of the leading physicians of that section. Funeral services were conducted from Waverly Hall at Waverly, Alabama, and interment in Roxana cemetery.

Dr. James A. Wise, Hapeville, died at a local hospital on October 18, 1927. He was born in 1846. Dr. Wise was a confederate veteran and a prominent physician for many years. He was first master and a charter member of Hapeville Lodge of Masons. Dr. Wise is survived by his widow, one brother, L. A. Wise, Hickory, North Carolina; and seven grandchildren. Funeral services were conducted by Rev. William Huck from the Hapeville Presbyterian church and interment in College Park cemetery.

Dr. John Franklin Lemmon, Mt. Airy, died at his home on October 18, 1927. He was born August 8, 1854, at Cincinnati, Ohio. Dr. Lemmon is survived by his widow; two sons, Franklin H. Lemmon with the United States Navy; Sam H. Lemmon of Alpine, California; one daughter, Mrs. Mary Lemmon Clere. Funeral services were conducted from the residence and interment in Mt. Airy cemetery.

**INTER-STATE POST-GRADUATE ASSEMBLY OF NORTH AMERICA WILL CON-
VENE IN ATLANTA, OCTOBER, 1928**

Medical Association of Georgia

Next Annual Session, Savannah, Ga., May 9, 10, 11, 1928

President.....	W. A. Mulherin, Augusta
First Vice-President.....	H. M. Fullilove, Athens
Second Vice-President.....	C. Thompson, Millen
Secretary-Treasurer.....	Allen H. Bunce, Atlanta
Parliamentarian.....	M. A. Clark, Macon

Delegates to the A. M. A.

E. C. Thrash (1926-8).....	Atlanta	C. W. Roberts (1926-8).....	Atlanta
Alternate, J. W. Palmer.....	Ailey--	Alternate, B. T. Wise.....	Plains
A. H. Bunce (1927-9).....	Atlanta		
Alternate, Wm. R. Dancy.....	Savannah		

COUNCIL

C. K. Sharp, Chairman.....	Arlington	M. M. Head, Clerk.....	Zebulon
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Councilors

1. Wm. H. Myers (1930).....	Savannah
2. C. K. Sharp (1930).....	Arlington
3. G. Y. Moore (1930).....	Cuthbert
4. O. W. Roberts (1930).....	Carrollton
5. E. C. Thrash (1928).....	Atlanta
6. M. M. Head (1928).....	Zebulon
7. M. M. McCord (1928).....	Rome
8. Stewart D. Brown (1928).....	Royston
9. C. L. Ayers (1929).....	Toccoa
10. S. J. Lewis (1929).....	Augusta
11. A. S. M. Coleman (1929).....	Douglas
12. J. Cox Wall (1929).....	Eastman

Vice-Councilors

1. C. Thompson (1930).....	Millen
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 Ware, C. E., Hurt Bldg., Atlanta
 Warnock, R. T., 720 Candler Bldg., Atlanta
 Warren, W. C., Jr., Atlanta Nat'l Bank Bldg., Atlanta
 Warren, W. C., Sr., Atlanta Nat'l Bank Bldg., Atlanta
 Waters, W. C., 126 Forrest Ave., N.E., Atlanta
 Weaver, J. C., 78 Ellis St., N.E., Atlanta
 Weinkle, B. O., 139 Forrest Ave., N.E., Atlanta
 Wells, W. F., 701 Medical Arts Bldg., Atlanta
 West, C. M., Hurt Bldg., Atlanta
 Westmoreland, W. F., 158 Forrest Ave., N.E., Atlanta
 White, Jno. B., 605 Medical Arts Bldg., Atlanta
 White, Jno. C., Atlanta Nat'l Bank Bldg., Atlanta
 White, O. T., 486 Jackson St., N.E., Atlanta
 Wiggins, L. W., Atlanta Nat'l Bank Bldg., Atlanta
 Willins, C. A., Hurt Bldg., Atlanta
 Williams, Geo. A., 478 Peachtree St., Atlanta
 Williamson, Milton W., 332 West Peachtree St., Atlanta
 Williamson, M. Wyatt, 720 West Peachtree St., Atlanta
 Willingham, T. I., Candler Bldg., Atlanta
 Wood, James A., 478 Peachtree St., Atlanta
 Wood, R. Hugh, 1010 Medical Arts Bldg., Atlanta
 Woodland, J. C., 4th Corps Area Headquarters, Atlanta (Hon.)
 Yampolsky, Joseph, Candler Bldg., Atlanta
 Yankey, W. E., 478 Peachtree St., Atlanta
 Young, W. W., 478 Peachtree St., Atlanta

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 Burford, R. E. L., Brunswick
 Burford, Robert S., Brunswick
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Gray, R. M., Sugar Valley
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 Walker, W. A., Cairo
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Members

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 Ezzard, W. P., Lawrenceville
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 Hamrick, H. P., Buford
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 Hutchins, W. J., Buford
 Kelley, C. A., Lilburn
 Kelley, D. C., Lawrenceville
 Kelley, G. S., Lawrenceville
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 (Deceased)
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 Collins, Katherine R., General Hospital, Spartanburg, S. C.
 Duckett, P. Y., Cornelia
 Garrison, W. H., Clarkesville
 Glidden Edson W., Alto (Hon.)
 Harden, O. N., Cornelia
 Jackson, J. B., Clarkesville
 Lamb, E. H., Demorest
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 McClure, J. H., Cornelia

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Members

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 Burns, J. K., Jr., Gainesville
 Butler, C. G., Gainesville
 Cheek, Pratt, Gainesville
 Davis, B. B., Gainesville
 Downey, J. H., Gainesville
 Gibbs, E. T., Gainesville
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 Hodges, L. W., Gainesville
 Meeks, J. L., Gainesville
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 Neal, L. G., Cleveland
 Palmour, W. A., Gainesville
 Phillips, H. K., Helen
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 Titshaw, H. S., Gainesville
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HANCOCK COUNTY**Member**

Jernigan, C. S., Sparta

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 Vice-President.....Colvin, E. G.
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 Crawford, R. L., Locust Grove
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 Harper, J. W., Hampton
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Members

Cater, R. L., Perry
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 Bennett, J. C., Jefferson
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 Dubuque, Iowa
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 Freeman, Ralph, Hoschton
 Hardman, L. G., Commerce
 Hubbard, F. M., Commerce
 Kennedy, W. C., Talno
 Lord, C. B., Jefferson
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 Belcher, F. S., Monticello
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 Cary, R. F., Monticello
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 Secy.-Treas.....Thompson, C.
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 Jones, J. M., Thrift (Hon.)
 Lee, H. G., Millen
 Mulkey, Q. A., Millen
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 Bray, H. B., Wrightsville
 Branson, R. L., Wrightsville
 (Deceased)
 Harris, T. L., Wrightsville

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 Barron, J. M. F., Milner, R. F. D.

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 Delegate.....New, J. E.

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 Benson, R. S., Alamo, R. No. 1
 Carter, J. G., Scott
 Chappell, R. J., Dudley
 Cheek, O. H., Dublin
 Claxton, E. B., Dublin
 Coleman, A. T., Dublin
 Edmondson, J. W., Dublin
 Hodges, C. A., Dublin
 Kea, T. B., Adrian
 Montford, H. L., Dublin
 Moye, C. G., Brewton
 Murray, D. L., Dexter
 New, J. E., Dexter
 Page, L. J., Dublin
 Thompson, W. C., Dublin
 Walker, Sidney, Dublin
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 Delegate.....Smith, J. M.

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 Burns, D. L., Valdosta
 Ellis, S. B., Valdosta
 Griffin, A., Valdosta
 Little, A. G., Valdosta
 Meadows, C. B., Valdosta
 Mixson, J. F., Valdosta
 Pennington, J. W., Howell
 Pennington, T. E., Naylor (Dec.)
 Prescott, J. P., Lake Park
 Quarterman, P. C., Valdosta
 Smith, J. M., Valdosta
 Smith, T. H., Valdosta
 Thomas, F. H., Valdosta
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 Delegate.....Richardson, C. H.

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 Derrick, H. C., Oglethorpe
 Frederick, D. B., Marshallville
 Greer, C. A., Oglethorpe
 Lightner, L. L., Ideal
 Mullino, F. M., Montezuma
 McGill, R. E., Montezuma
 Nelson, G. W., Marshallville
 Richardson, C. H., Sr., Montezuma
 Savage, C. P., Montezuma

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President.....Banister, H. G.
 Secy.-Treas.....Gholston, W. D.
 Delegate.....Banister, H. G.

Members

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Gholston, W. D., Danielsville
 Hampton, H. H., Colbert
 Loden, G. L., Colbert
 Moore, M. P., Williamson, W. Va.
 Westbrook, R. J., Ila
 Whelchel, C. C., Comer

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 Bennett, V. H., Gay
 Dixon, J. L., Woodbury
 Ellis, W. P., Gay
 Gilbert, R. B., Greenville
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 Vice-President.....Summerlin, J. A.
 Secy.-Treas.....Stevenson, C. A.

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 Clements, J. R., Pelham
 Cranford, O. G., Sale City
 Lewis, F. L., Camilla
 Luke, D. P., Camilla
 Reid, C. W., Pelham
 Riley, J. H., Baconton
 Roles, C. L., Camilla
 Stevens, A. T., Sale City
 Stevenson, C. A., Camilla
 Summerlin, J. A., Pelham
 Williams, B., Pelham

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 Vice-President.....Goolsby, R. C., Jr.
 Secy.-Treas.....Smith, W. J.
 Delegate.....Elrod, J. O.

Members

Alexander, G. H., Forsyth
 Alexander, G. L., Forsyth
 Elrod, J. O., Forsyth
 Goolsby, R. C., Jr., Forsyth
 Goolsby, R. C., Sr., Forsyth
 Smith, B. L., Forsyth, Rt. No. 1
 Smith, W. J., Juliette

MONTGOMERY COUNTY**Officer**

Secy.-Treas.....Hunt, J. E.

Members

Dees, J. H., Alston
 Hunt, J. E., Mt. Vernon
 Moses, W. M., Uvalda
 Palmer, J. W., Ailey

MORGAN COUNTY**Officer**

Secy.-Treas.....Carter, D. M.

Members

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 Fambrough, W. M., Bostwick
 McGeary, W. C., Madison
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 Prior, F. M., Apalachee

MURRAY COUNTY**Officers**

President.....Bates, M. P.
 Vice-Pres.....Bradley, R. H.
 Secy.-Treas.....Dickie, E. H.
 Delegate.....Bradley, R. H.

Members

Bates, M. P., Ramhurst
 Bradford, J. E., Spring Place
 Bradley, R. H., Chatsworth
 Colvard, T. W., Crandall
 Dickie, E. H., Chatsworth
 Jones, F. M., Chatsworth (Hon.)
 Kemp, R. C., Conasauga, Tenn.

MUSCOGEE COUNTY**Officer**

Secy.-Treas.....Gilliam, O. D.

Members

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 Baird, J. M., Swift Bldg., Columbus
 Baker, E. L., Masonic Temple, Columbus
 Blackmar, Francis B., Woolworth Bldg., Columbus
 Brannen, O. C., Murrah Bldg., Columbus
 Campbell, W. H., 1036 Third Ave., Columbus
 Cooke, W. L., Doctors Bldg., Columbus
 Delamar, James, Masonic Temple, Columbus
 Dexter, C. A., Murrah Bldg., Columbus
 Dillard, Guy J., 420 Murrah Bldg., Columbus
 Dykes, A. N., Swift Bldg., Columbus
 Gilliam, O. D., Doctors Bldg., Columbus
 Johnson, C. D., 19½ Twelfth St., Columbus
 Johnson, J. H., Murrah Bldg., Columbus
 Jordan, W. P., Doctors Bldg., Columbus
 Moses, Alice, P. O. Box 863, Columbus
 Murray, G. S., Murrah Bldg., Columbus
 McDuffie, J. H., Jr., Masonic Temple, Columbus
 McDuffie, J. H., Sr., Masonic Temple, Columbus
 Norman, Frank P., Murrah Bldg., Columbus
 Peacock, C. A., Murrah Bldg., Columbus
 Tillery, Bert, Swift Bldg., Columbus
 Willis, J. N., City Hospital, Columbus
 Winu, J. H., Swift Bldg., Columbus
 Woolridge, J. C., Murrah Bldg., Columbus
 Youmans, J. R., 1140½ Broad St., Columbus
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McDUFFIE COUNTY**Member**

Boland, S. A., Thomson

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 Travis, W. D., Covington
 Waites, S. L., Covington
 Wilson, Pleas, Newborn

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(Bleckley, Dodge, Pulaski Counties)

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 Delegate.....Bush, A. R.

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 Massey, W. F., Chester
 Maloy, Jim, Rhine
 Parkerson, I. J., Eastman
 Pirkle, W. H., Cochran
 Smith, A. L., Cochran
 Smith, J. M., Cochran
 Wall, J. C., Eastman
 Whipple, R. L., Cochran
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 Secy.-Treas.....Head, M. M.

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 Grubbs, J. H., Molenia
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 Head, J. M., Zebulon (Hon.)
 Head, M. M., Zebulon
 Howard, I. B., Williamson
 Malloray, R. A., Coucord

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 England, W. G., Cedartown
 Good, Jno. W., Cedartown
 Peek, C. W., Cedartown
 Pennington, J. E., Esom Hill
 Whitley, S. L., Cedartown
 Wood, C. V., Cedartown

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 Crook, W. W., Cuthbert

Gary, Loren, Georgetown

Harper, T. F., Coleman
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 McCurdy, E. C., Shellman
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 Patterson, F. D., Cuthbert
 Patterson, J. C., Cuthbert
 Rogers, F. S., Coleman
 Rogers, W. T., Coleman (Dec.)
 Saurez, Annette McD., Cuthbert (Hon.)
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 Weathers, A. F., Shellman

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 Akerman, J. C., 831 15th St., Augusta
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 Baines, M. Carroll, Linwood Hospital, Augusta
 Baker, H. J., Southern Finance Bldg., Augusta
 Battey, W. W., Jr., 428 Sixth St., Augusta
 Beddingfield, W. R., Southern Finance Bldg., Augusta
 Beeler, Courtland, University Hospital, Augusta
 Bernard, G. T., 203 Thirteenth St., Augusta
 Blanchard, C. A., 926 Broad St., Augusta
 Blanchard, H. H., University Hospital, Augusta
 Blanchard, P. G., Appling
 Brown, T. P., Marion Bldg., Augusta
 Bryans, C. I., Lamar Bldg., Augusta
 Bryson, R. I., Southern Finance Bldg., Augusta
 Burdshaw, J. F., 724 Monte Sano Ave., Augusta
 Burdshaw, W. J., 724 Monte Sano Ave., Augusta
 Burpee, C. M., University Hospital, Augusta
 Butler, J. H., Lamar Bldg., Augusta
 Chaney, Ralph H., Medical College, Augusta
 Clayton, Malcolm D., 811 Metcalf St., Augusta
 Coleman, T. D., 936 Hickman Road, Augusta (Dec.)
 Crane, C. W., 1345 Greene St., Augusta
 Cranston, W. J., Lamar Bldg., Augusta
 Davidson, A. A., 1116 Greene St., Augusta
 Eaton, Paul, Medical College, Augusta
 Eve, H. J., 619 Greene St., Augusta
 Goodrich, W. H., Southern Finance Bldg., Augusta
 Gray, J. D., 1345 Greene St., Augusta
 Harison, W. H., 122 Jackson St., Augusta

Harrell, H. P., Southern Finance Bldg., Augusta
 Harvey, W. L., Bartow
 Holmes, L. P., University Hospital, Augusta
 Horne, G. T., Lamar Bldg., Augusta
 Hull, Ashbury, Lamar Bldg., Augusta
 Hull, J. M., 753 Broad St., Augusta
 Hulme, W. G., Grovetown
 Iluson, W. Joseph, Lamar Bldg., Augusta
 Jackson, Ole Cleveland, 714 East Chestnut St., Louisville, Ky.
 Jameson, Walter Byron, Lamar Bldg., Augusta
 Jennings, W. D., 753 Broad St., Augusta
 Kelley, G. Lombard, Medical College, Augusta
 Kelley, J. O., Avera
 Kellogg, W. C., Southern Finance Bldg., Augusta
 Kershaw, M. M., Lamar Bldg., Augusta (Dec.)
 Kershaw, Theo., Lamar Bldg., Augusta
 Ketchins, S. C., Louisville
 Kilpatrick, A. J., 704 Greene St., Augusta
 Lamar, R. V., Medical College, Augusta
 Lee, F. Lansing, Lamar Bldg., Augusta
 Lentz, C. S., University Hospital, Augusta
 Levy, M. S., Lamar Bldg., Augusta
 Lewis, J. R., Louisville
 Lewis, S. J., 1112-4 Southern Finance Bldg., Augusta
 Lichtenstein, S., Medical College, Augusta
 Malone, H. H., 740 Greene St., Augusta (Deceased)
 May, E. R., Lincolnton
 Mealing, H. G., Martintown Road, R. F. D., Augusta
 Metts, J. C., Sacred Heart Sanitarium, Milwaukee, Wis.
 Michel, H. M., Southern Finance Bldg., Augusta
 Milligan, K. W., 307 Tenth St., Augusta
 Montgomery, C. J., 918 Johns Road, Augusta
 Mountain, G. W., Walton Way, Augusta
 Mulherin, F. X., Southern Finance Bldg., Augusta
 Mulherin, W. A., Southern Finance Bldg., Augusta
 Murphey, E. E., 432 Telfair St., Augusta
 McGibony, J. R., University Hospital, Augusta
 Neagle, Harry B., 413 Maple Ave., Owosso, Mich.
 Octjen, Leroy H., University Hospital, Augusta
 Oden, Jno. W., Gracewood
 Oertel, T. E., Southern Finance Bldg., Augusta
 Oliphant, Jones B., Mitchell
 Page, Hugh N., 1345 Greene St., Augusta
 Phinizy, Irvine, Southern Finance Bldg., Augusta
 Price, W. T., Montgomery Bldg., Augusta

Pund, Edgar R., Medical College, Augusta
 Revell, S. T. R., Louisville
 Rhodes, R. L., Lamar Bldg., Augusta
 Roberts, W. H., 828 Green St., Augusta
 Robertson, J., Righton, 753 Broad St., Augusta
 Salley, O. B., 1315 Wingfield St., Augusta
 Sasser, Thos. J., University Hospital, Augusta
 Scharnitzky, E. O., Lamar Bldg., Augusta
 Shaw, H. W., Lamar Bldg., Augusta
 Sherman, John, 2341 Kings Way, Augusta
 Silver, D. M., Lamar Bldg., Augusta
 Sydenstricker, V. P., University Hospital, Augusta
 Tessier, L. P., Masonic Bldg., Augusta
 Thurmond, J. W., University Hospital, Augusta
 Timmons, C. C., 401 Milledgeville Road, Augusta
 Traylor, Geo. A., Southern Finance Bldg., Augusta
 Wade, A. C., Marion Bldg., Augusta
 Walton, C. R., Lenwood Hospital, Augusta
 Ward, Chas. D., Southern Finance Bldg., Augusta
 Weeks, J. L., Harlem
 Wilcox, E. A., 921 Greene St., Augusta
 Wright, Geo. W., University Hospital, Augusta
 Wright, J. C., Southern Finance Bldg., Augusta
 Wright, Lewis H., University Hospital, Augusta
 Wright, P. B., Lamar Bldg., Augusta
 Youmans, C. R., Wilhenford Hospital, Augusta

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 Secy.-Treas.....Downing, E. E.

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 Austin, W. H., Griffin
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 Copeland, H. W., Griffin
 Drewry, T. E., Griffin
 Forrer, D. A., Griffin
 Frye, A. H., Griffin
 Griffith, C. F., Griffin
 Hawkins, T. I., Griffin

Huckaby, A. H., Griffin
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 Hunt, K. S., Griffin
 Miles, W. C., Griffin
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Members

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 Chaffin, E. F., Toccoa
 Craig, Alexander, Toccoa
 Davis, Jeff, Toccoa
 Isbell, J. E. D., Toccoa
 Swain, W. H., Martin
 Terrell, J. H., Toccoa

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 Secy.-Treas.....Kenyon, J. M.
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 Alston, N. C., Richland (Hon.)
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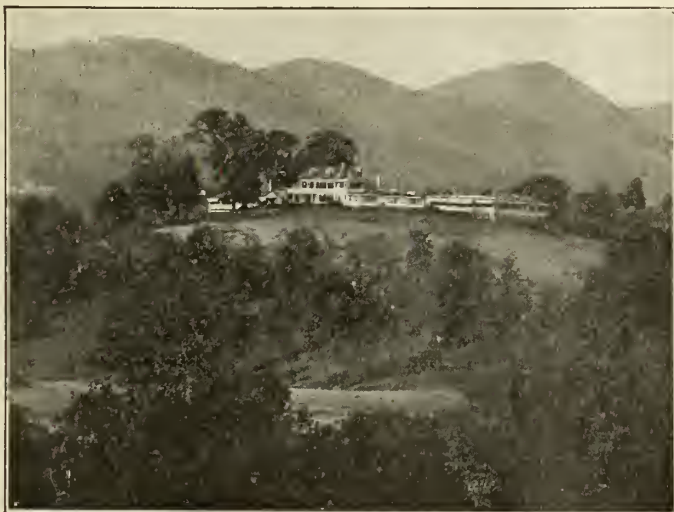
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